

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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Mr. REYNOLDS refers to his remarks on page 1185.

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GEOLOGY OF CORNWALL.

Although every mining region has beyond question its characteristic peculiarities it is equally certain that the miner who has studied the minute details of any one district can readily turn his knowledge to advantage elsewhere, and at the time at one's disposal for study, when he has his ordinary business to attend to, is usually limited, a well arranged and reliable digest of the facts relating to a given subject is of considerable value, such a digest so far as Cornish geology is concerned is furnished in Mr. Brenton Symons's admirable little volume—*A Sketch of the Geology of Cornwall*, including a brief description of the mining districts and the ores produced in them. By BRENTON SYMONS, F.C.S., A.M.I.C.E., M.E. London: *Mining Journal* office, 26, Fleet-street—just issued. In a couple of hundred pages Mr. Symons has given a thoroughly reliable outline of the history and topography of the county, and treated of the sequence of geological formations, the paleontology, the elvans vein systems and gangues, the distribution and paragenesis of minerals, the mining districts, geological economics, the history of metals and their reduction, quarries, temperature of mines, and various other matters of general practical interest. In referring to the sequence of geological formations the author has some remarks upon the granite rocks which may be reprinted both from their general interest and as showing the neat and able manner in which he handles the subjects dealt with. He explains that the clays, sandstones, conglomerates, and limestones which surround the eruptive highlands of Cornwall, though all included in the paleozoic or primary group of formations, have yet been deposited at periods so immensely removed one from the other that there was time sufficient for a specific and even generic mutation of marine life, and for a change in the deep seated axes of upheaval by which some of the clay slates were folded into ridges from which the strata inclined both ways. Thus the portion of Britain, now called Cornwall, was sea and land alternately before the upheaval of granite which was to transform a mass of barren schist into rocks teeming with metalliferous wealth. Some physicists are of opinion that the granite range stretching from Scilly to Dartmoor is the result of upward thrusts given at distant epochs by forces acting in diverse directions, but geologists who have devoted their time and abilities to the study of the Cornish strata consider them as formed during the same geological period, and place the epoch after the deposition of the Upper Devonian. From the constitution of the granite it is inferred that it was cooled under a pressure whose equivalent has been calculated at 5 miles of depth.

The general direction of this granite ridge is east-north-east, and though no doubt the original thickness of the slates brought up on the granite was very great during and since emergence from the ocean, denudation has exposed a chain of granite domes of various extent, and reduced the thickness of the surrounding slates so considerably that over most of the county the backs of the elvans and lodes have been brought within workable distance of the miner. . . . The granite protrudes above the slates in masses of rounded form, and the exfoliation produced by the reaction of external influences has given rise to a massive lamellar structure which is very conformable to the surface and dips at gentle angles under the clay slate. This, combined with the fissures due to the divisional planes, has caused the granite to assume the columnar and tubular appearance so characteristic of this rock. It will have been perceived from the above remarks that the reiterated fractures sustained by the consolidating granite crust could only have resulted in a very considerable diversity of the proximate constitution as well as the texture of the erupted masses. The more closely the rocks are observed the clearer becomes the evidence of the extreme incongruity of the granite. Generally the rock has a coarse granular appearance which is most pronounced in the Land's End district, and is of the finest grain on Dartmoor. . . . Large areas are rendered porphyritic by the occurrence of big crystals of felspar, sometimes white, but beautifully tinted in the vicinity of the metalliferous deposits by incipient decomposition. As a rule it may be said that the crystals forming the aggregate are individually imperfect, or have their edges not sharply defined. The granite is also drier, more compact, and of a more homogenous texture when far from its junction with other rocks. . . . The granite is so variable that it is quite impossible to give its chemical composition with anything approaching to accuracy. If we take an ordinary porphyritic kind in which the proportion of felspar, quartz, and mica are respectively equal to about one-half, one-third, and one-sixth, there would be about 73 per cent. of silica, 19 per cent. alumina, and 8 per cent. of potassa, besides fractional percentages of iron oxides, magnesia, lime, soda, manganese, and fluoric acid, and where schorl abounds, boracic acid. Other common varieties do not contain so much silicic acid.

As granite owes half its bulk and nearly all its mobility to felspar its character and resistance to decomposing influences is very dependent on that mineral. When the felspar weathers the rock separates into its component parts, and the surface is strewed with grawan. The felspar crystals bestow on the rock its ensemble, thus in the finer grained and non-metalliferous portions the confused aggregation with felspar gives the granite a dull grey colour, whilst in those places mostly approximate to the mining fields where the felspar crystals are, as a rule, ill-defined, and where incipient oxidation has altered their colour, variegated shades of brown, red, crimson, green, &c., impart to the rock characteristic hues that please the eye and guide the miner in his search after subterranean ores. . . . After felspar quartz is the most important ingredient of granite. It is amorphous, and seems to have been to some extent plastic when the mica and felspar had assumed more or less their forms. It is generally pellucid, has a pearly white lustre, and often appears to have a smoky interior. . . . The mica though usually small in quantity has numerous black, brown, and silvery white colours that give a pleasing brilliancy of appearance and diversity of character in the mineral districts, although more dull and monotone elsewhere. . . . Neither hornblende nor talc are abundant in ordinary granite, though chlorite and talc replace to a small extent the mica in varieties; pyrite is, however, rather common in the Tregoning and Land's End district. At rare places, as in the Carn Marth rocks, flour-spar is found as a constituent. Tin ore or cassiterite is found disseminated in patches of granite in St. Just, and on the eastern side of Tregoning Hill, but it can scarcely be said to be a constituent of the granite.

The eruptive matter, he continues, which rushed into the earthquake chasms formed in the earliest consolidated granitic crust was probably injected at the same epoch as the granite veins which rent asunder the adjacent sedimentary strata whenever the requisite pressure became developed by the upheaval of the granite. As granite veins are seen cutting the clay slates in small tortuous veins, or penetrating between the beds wherever a junction is exposed, either amongst the rugged cliffs or in the mines, it is rational to infer that they occur along the whole line of juxtaposition. The character of these veins which have no definite direction is the same as the granite from which they were derived. The veins are usually of no great length, but since at Porthleven Cove and other places they may be seen less than 1 in. thick, though of considerable length the eruptive matter must have possessed a considerable amount of fluidity. From the numerous fragments torn from the slate and isolated in the veins the force of the eruption must have been immense; in some places the molten rock has forced itself through strata which have closed behind it and left isolated masses of granite. Granite veins gradually fine out, have no distinct walls like elvans, and indifferently intercalate with the strata or run athwart them. Owing to some difference in the rate of cooling the smaller veins have more quartz and less mica with a finer grain; and the larger though crystalline and even porphyritic in the middle are compact along the sides. All the veins and isolated masses of granite are recognised after due examination to proceed from the main mass, and like it are non-metalliferous. If one may judge from the numerous granite veins visible about the beach and cliffs of the Lizard penetrating serpentine and diabase rock; the inference that the magnesian rocks of that promontory have also suffered from the same upheaval, and now overlie granite is difficult to resist. The localities where the veins occur are much too numerous to mention, but they can be best studied at Trewavas, near Helston, Polmear in Zennor, Porthleven in St. Just, and underground in the mines which are opened along the junction at the northern foot of Carn Brea Hill.

The wish has frequently been expressed by shareholders in mines

that they could obtain some work which would give them such a knowledge of the geology of a metalliferous district as would enable them to comprehend and appreciate reports on mines and technical papers on mining subjects, and Mr. Symons's volume certainly seems precisely to meet that wish, more especially as the volume is well illustrated with numerous woodcuts and steelplate engravings, has a good geological map of the county, and an excellent index, and is written in a clear and readable style. From a careful study of the book a fair idea of the relative merits of the several districts for producing the different metals may be obtained, and even the reader who may consult it without any thought of turning the knowledge gained to pecuniary advantage will find an abundance to satisfy him for its perusal—the work is at once concise, cheap, reliable, and entertaining.

PRINCIPLES OF THE MANUFACTURE OF IRON AND STEEL.

Upon the subject of the metallurgy of iron it would be difficult indeed to find a more competent and widely recognised authority than Mr. ISAAC LOWTHIAN BELL, F.R.S., and the very valuable volume which he has now issued—*Principles of the Manufacture of Iron and Steel*; with some Notes on the Economic Conditions of their Production. By I. Lowthian Bell, F.R.S. London and New York: George Routledge and Sons, Ludgate Hill—will certainly increase rather than otherwise the confidence generally felt in his opinions. After the completion of his labours as a juror at the French Exhibition, 1878, Mr. Bell was requested by the British Iron Trade Association to prepare a report on the present condition of the manufacture of iron and steel, as illustrated by the objects displayed in the different buildings in the Champs de Mars, at Paris. He had, however, previously proposed to himself a more extensive enquiry than that which would be covered by a mere examination of the products of the ironworks of France and of other nations, as exhibited on the occasion referred to. As several years have elapsed, Mr. Bell explains that the apparent delay has been chiefly due to a wish to extend his enquiries on some of the questions treated of in the papers he had published in the *Transactions of the Iron and Steel Institute*—this observation applies particularly to the use of charcoal and of raw coal in the blast-furnace—and in furtherance of these objects not only had additional experiments to be undertaken, but various furnaces in this as well as in foreign countries had to be visited and examined.

In stating that Mr. Bell's book is a complete and exhaustive account of the metallurgy of iron and steel as understood and carried on at the present day, no more is said than the volume justly deserves. In an interesting historical chapter of a couple of dozen pages the author gives quite as full an outline of the early progress of this branch of metallurgy as is necessary to make the succeeding chapters thoroughly interesting to the reader. There are chapters on direct processes for making malleable iron, on the preliminary treatment of materials for the blast-furnace, on the blast-furnace, on the use and theory of the hot-blast, on the quantity and quality of fuel required in the blast-furnace using air of different temperatures, on the solid products of the blast-furnace, on the chemical changes as they take place in the blast-furnace, on the equivalents of heat evolved by the fuel in the blast-furnace, on hydrogen and certain hydrocarbon compounds in the blast-furnace, on the production of malleable iron from pig-iron in low hearths, on the refining and puddling furnace, on more recent methods of separating the substances taken up by iron during its passage through the blast-furnace, on the statistics of the subject, on British labour as compared with that of the continent of Europe, on labour in the United States, and on a comparison of the chief iron-producing countries. To attempt to supply an outline of a work like the present would be futile, but we may give a couple of extracts as examples of the concise and explanatory manner in which Mr. Bell furnishes his information. Referring to the prospects of the more northern of the United States, he observes that passing by the difficulty of reconciling the necessity of guarding against foreign importations (already burthened with cost of freight) by a protective duty, with the expectation of a future export trade, which in its turn must be saddled with transport charges, it seems to him that so long as the Northern States are dependent upon their present mining resources as regards ore, it is futile to hope for any export trade from that division of the Union. On the contrary, the iron masters of the North must prepare themselves for importations, not from Europe but from a quarter against which the present legislative constitution of the States will afford no protection. The quarter alluded to is of course the Southern States. Very trifling extensions of the present railways will place the whole of Tennessee, Alabama, and Georgia in direct communication with the Tennessee river. He understands one impediment only exists which impedes free navigation. This removed, the Mississippi and Ohio will become accessible from those States by steam navigation. The distance from a central point (say) Chattanooga to Pittsburg by river is probably 1000 miles, for which the freight will probably not exceed that from Great Britain.

In these Southern States coal can be worked nearly as cheaply as at Connellsburg, while the labour on the whole of the ore entering into the manufacture of a ton of iron is not more than that expended on the extraction of a single ton of ore near Marquette. Besides this there is the fact that the bringing of the minerals together in the Northern States often costs 30s. to 40s. per ton of iron made. With these elements of cost, it seems impossible to deny that in the absence of fresh ore discoveries in the North, time alone is required to produce a considerable change in the seats of the American iron trade. This state of things naturally suggests the enquiry as to the ability of the South to enter the markets of the world in competition with Great Britain. It cannot be disputed that up to this time pig-iron has never been produced in Alabama or in its vicinity within some shillings per ton of the price at which it can be made from Cleveland ironstone in England. The removal of difficulties which always beset the introduction of new industries may partly equalise these differences, but by that time labour probably will no longer be to be had in the Southern States upon so much lower terms than it commands in the North. Be this however as it may there remains the insurmountable difficulty of the cost of transport to the chief iron-consuming populations in the world—those of Europe. The nearest point of the Alabama mineral field cannot be short of 150 miles from the seaboard. Admitting the carriage from the works to be done for 4d. per ton per mile, this added to the Atlantic freight would probably entail a cost of 20s. per ton of iron delivered on the shores of Great Britain or of Northern Europe above that paid by ourselves or by Germany. This extra charge for freight no doubt would be reduced when competing with us for the custom of the Mediterranean ports or those of Asia, South Africa, Australia, and elsewhere.

Considering the prospects of the three European nations, more prominently referred to in the volume as regards competition with us in the exportation of iron and steel, Mr. Bell observes that it may be said that the only quarter from which Great Britain is threatened, at present at all events, with successful competition is from those districts which are either situated upon or are within easy reach of the great iron ore deposit stretching from Western Germany through Luxemburg into Eastern France. From some cause or another there seems occasionally a greater difficulty in producing foundry iron from this variety of mineral than obtains in the use of the Cleveland ironstone. It is, however, in the subsequent products of malleable iron and steel that we have most to fear the rivalry of our continental neighbours rather than in pig-iron. The reason of this is that labour being cheaper with them than it is with ourselves, it is only when wages enter more largely into the cost of the product than they do in the case of pig-iron that the continental advantages from this source operate seriously to the prejudice of the British manufacturers. At the same time cheap pig-iron is an all-important factor in the economical production of iron and steel, and so far as the raw materials for the blast furnaces are concerned it would appear, that Western Germany, Luxemburg, and Eastern France enjoys facilities, in some cases, even superior to those possessed by the district in England most favourably situated for exportation. Belgium, on the other hand, having to bring its ore from Luxemburg at a cost of 4s. 8d. per ton for carriage, although it has coal on the spot, is unable

to obtain the raw materials for its pig-iron quite as cheaply as are delivered to the Cleveland furnaces.

The result of the discovery of the basic process is, in Mr. Bell's opinion, that places like Western Germany and Ilseide—without any ore suitable for the acid process, and so far distant from a seaport that the carriage of the ore from the ship would forbid its use—are no longer shut out from the manufacture of steel. Great Britain, although it still possessed some advantage over other European nations in this new process in relation to its export trade, has had this advantage materially lessened by the introduction of the basic process. So much so indeed that it is in some instances questionable whether the cheaper labour in the steel processes themselves may not place the two in a position of equality when they meet each other in neutral markets. Such certainly appears to have been the case even when the higher price of the pig-iron required in the acid process was included; for certain it is that as regards the dear kinds of steel, such as that for springs, railway axles, &c., Belgium and Westphalia have been sending considerable quantities for the use of English railways. The figures given for the Tees, Western Germany, Ilseide, Belgium, and Westphalia, which he believes will be found fairly correct, go to prove that the abrogation of all import duties in Belgium or Germany would not place Great Britain in a better position as regards the manufacture of forged iron than that occupied by the makers, even in the least favoured of the districts just named. The force of this observation is still stronger when applied to iron in the more advanced stages of malleable iron and of steel.

The stretch of country between Luxemburg and Nancy would be somewhat less favourably placed for the manufacture of steel rails from the coal; but any importations required for Eastern France would, under the conditions of the cost of manufacture in Western Germany, be obtained from works there which are much nearer the point of consumption than those of Great Britain. As regards Central and Southern France their geographical position and the price of fuel forbid the cultivation of a large foreign trade. He has been informed that it has been in contemplation to remove one of the rail mills in the neighbourhood of St. Etienne to the coast in order to render the Bilbao ore available for export orders. In such a case the coal would have to be conveyed over a considerable distance; but whether looking at the resources of Bilbao in respect to ore already placed under very heavy contributions, and also at the expense of fuel, such a course would be a prudent one, may be open to question. Since writing what has appeared in the present work on the construction of iron vessels, Mr. Bell has received particulars of an establishment in Norway where something like 800 men are engaged in building steamers of iron.

On comparing the wages paid at the yard in question, Mr. Rayton Dixon estimates that upon a vessel of a given size the labour will cost 25 per cent. less than that expended on a similar vessel built in England. From the advantage accruing from this source must be deducted the freight on the materials used in its construction, which at the present time, with the exception of timber, may be said to be taken from England. The net result of these two factors on the cost is such that, on a vessel of 1500 tons dead-weight capacity, the Norwegian builder can turn out his work for 525s. less than his English competitor is able to do it. We still, however, in the competition which may arise between English and Norwegian ship-builders, enjoy the privilege of furnishing the iron and coal. As soon, however, as the German mills are placed upon the footing of those in our country which are laid out for rolling large quantities of ship-plates, we shall, I fear, behold this trade slip away from us unless our plate-rollers, &c., are willing to accept something approaching to the same prices as those paid in Germany and elsewhere.

The mass of valuable information contained in the volume is enormous; in fact we know of no other work which the practical metallurgist engaged in the manufacture of iron and steel could refer to and study with equal benefit to himself and to those employing him.

AUTOMATIC AND NON-AUTOMATIC BRAKES.

The Vacuum Brake Company, of Queen Victoria-street, has issued an interesting tabulated abstract, showing the relative reliability of pressure and vacuum brakes, and of the automatic and non-automatic systems. The subjoined are extracts from the Board of Trade Returns on continuous brakes for the half-year ended June 30, 1884, where the mileage run has been of importance, illustrating the faults recorded against automatic and non-automatic brakes:—

AUTOMATIC BRAKES.

	WESTINGHOUSE AUTOMATIC BRAKE.	CLARK AND WEBB'S.	
	Miles run. Faults.	Miles run.	
Eastern and Midlands	76,001 ... 3	12,931 ... 0	
Great Eastern	3,172,770 ... 115	7,339,425 ... 91	
Great Northern	20,534 ... 1	855,598 ... 2	
L. Bright & So. Coast	3,122,510 ... 74	322,901 ... 11	
L. Chatham & Dover	136,689 ... 13	Belfast Central	11,246 ... 0
Midland	374,390 ... 37		
North-Eastern	4,452,209 ... 47		
Rhymney	67,403 ... 0		
West Lancashire	124,025 ... 0		
Caledonian	1,397,759 ... 48		
Glasgow & So. Western	794,184 ... 19		
North British	1,785,731 ... 40		
Great No. of Scotland	2,262 ... 0		
Total	15,506,447 ... 397	8,946,005 ... 47	

SIMPLE VACUUM BRAKES.

	NORTH STAFFORDSHIRE	CHESHIRE LINES	GREAT EASTERN	GREAT NORTHERN	GREAT WESTERN	
	79,544 ... 0	521,503 ... 0	121,618 ... 0	3,958,441 ... 21	218,125 ... 0	
					377,688 ... 7	
					London & No. Western	397,688 ... 7
					L. Chatham & Dover	14,020 ... 0
					Man. Sheff. & Lincoln	1,698,325 ... 4
					Man. So. J. & Atrr.	83,609 ... 0
					Metropolitan	782,352 ... 1
					Midland	148,598 ... 1
					North-Eastern	219,559 ... 1
					South-Eastern	789,901 ... 1
					Taff Vale	88,331 ... 0
					G. No. of Ireland	241,069 ... 0
					G. So. & W. of Ireland	773,991 ... 0
					Sligo, Leit., & No. Co.	7,891 ... 0
					Ballymena & Larne	11,818 ... 0
					Dub. Wick., & Wex.	224,960 ... 0
Total	10,397,021 ... 0					

WESTINGHOUSE (Non-Automatic).
Metropolitan District 624,03 ... 0
This shows for Westinghouse, 1 fault per 39,059 miles; Automatic vacuum brakes, 1 fault per 141,252 miles.
" failures reported.
The mileage run with continuous brakes (pressure and vacuum) during the half-year ended June 30, 1884:—

Registration of New Companies.

The following joint-stock companies have been duly registered:

EVANS, SONS, AND MASON (Limited).—Capital 50,000*l.*, in shares of 10*l.* To acquire and carry on a wholesale druggist and chemist business established at Montreal and Toronto, Canada. The subscribers (who take one share each) are—E. Evans, Liverpool; J. J. Evans, Liverpool; E. Evans, jun., Liverpool; W. Evans, Liverpool; J. Blyton, Manchester; M. Conroy, Liverpool; W. Willings, Fairfield.

THE UNION INDUSTRIAL, ACCIDENT, AND GENERAL ASSURANCE COMPANY (Limited).—Capital 25,000*l.*, in shares of 1*l.* To grant insurances for the protection of principals and employers against liability in case of injury, damages, loss, &c. The subscribers (who take one each) are—A. Brook, Clapton; A. Longridge, Brixton; J. Clark, Clapham; E. Griffin, Clapham; C. Harford, Philip-lane; T. A. Taylor, 37, Aldermanbury; G. Garrett, Deptford.

FREDERICK BAILEY AND COMPANY (Limited).—Capital 100,000*l.*, in shares of 10*l.* To acquire and carry on a brewer and maltster's, wine and spirit merchant's business in Cambridge. The subscribers are—F. Bailey, Cambridge, 10; A. M. Robinson, Milton, 10; S. L. Young, Cambridge, 10; J. Webb, Cambridge, 10; H. H. Tebbutt, Cambridge, 10; J. Holder, 40, Cheapside, 10; W. A. Skinner, Cambridge, 5.

THE WHARFIELD GLAZED BRICK AND TILE COMPANY (Limited).—Capital 15,000*l.*, in shares of 5*l.* To acquire a going concern in Liverpool, and to carry on the business of brick and tile manufacturers and merchants in all branches. The subscribers are—P. H. Pope, Tunstall, 5; A. Roberts, Colridge, 100; G. Dutton, Tunstall, 5; A. W. Roberts, Colridge, 1; J. Davenport, Stoke-upon-Trent, 1; J. Davenport, Stoke-upon-Trent, 2; J. Moody, Newcastle, 5.

THE WEMYSS MINE (Limited).—Capital 15,000*l.*, in shares of 2*l.* To adopt and carry into effect a certain agreement for the acquisition of a property belonging to a company having a similar name, together with all liabilities, assets, contracts, &c., for the purpose of working and developing mines of lead and other minerals, situated in the parish of Llanfihangel-y-Croyddin, Cardiganshire, containing about 263 acres, and any other mineral properties that may come into the possession of this company. The subscribers (who take one share each) are—S. Firth, Aberystwith, engineer; J. Morgan, Aberystwith, timber merchant; G. Davis, Aberystwith, merchant; W. Williams, Aberystwith, solicitor; D. Hughes, Aberystwith, secretary; R. H. Ellis, Aberystwith, ironfounder; W. Marshall, Aberystwith, mine agent. The number of directors must not be less than two or more than five. Messrs. S. Firth and J. S. Green are the first directors, the qualification to be fixed at five shares.

THE BURRADON AND COXLODGE COAL COMPANY (Limited).—Capital 150,000*l.*, in shares of 50*l.* To purchase, according to the terms of an agreement, the collieries, coal mines, fire-clay works, farms, railways, and properties belonging to the Burradon and Cox-lodge Coal Company, and to carry on generally the business of colliery and mine owners, quarry owners, manufacturers of gas, coke, bricks, tiles, &c. The subscribers (who take one share each) are—R. N. Byass, 3, Brabant-court, merchant; A. Byass, 3, Brabant-court, merchant; R. W. Byass, 3, Brabant-court, merchant; E. A. Miz, 77, Lombard-street, banker; M. W. Lambert, Newcastle-on-Tyne, colliery proprietor; J. H. Reach, Newcastle-on-Tyne, coal-fitter; M. H. Lambert, Whitley Hall, gentleman. Qualification, stock or shares of the nominal value of 2000*l.*

THE COWES STEAM TUG COMPANY (Limited).—Capital 5000*l.*, in shares of 50*l.* The general business of steam tug owners, and everything necessary for the towage of vessels. The subscribers are—G. Eldridge, West Cowes, 1; G. E. Hansen, West Cowes, 2; P. Kyle, West Cowes, 1; J. H. Atkey, Cowes, 1; P. F. Bishop, Gurnard, 2; E. White, Cowes, 1; T. W. Faulkner, West Cowes, 1.

THE ANGLO-FRENCH MARBLE COMPANY (Limited).—Capital 200,000*l.*, in shares of 1*l.* To acquire by purchase or otherwise any lands, marble quarries, &c., in France, and to raise, sell, and deal in marbles, and any other products manufactured by the company. The subscribers (who take one share each) are—G. Butler, 4, Guildford-street; W. H. Boon, 5, Bateman-terrace; W. Stockigt, 25, Burlington-road; G. N. Newark, 7, Union-court; W. Anderson, 110, Cannon-street; J. Macdonald, 42, Mildmay Chambers; H. Copland, 49, Cannon-street.

THE CRYSTALLINE GLASS COMPANY (Limited).—Capital 20,000*l.*, in shares of 5*l.* To acquire, use, send or deal in certain patents relating to improvements in the treatment of vitreous and glazed surfaces for decorative purposes. The subscribers (who take one share each) are—A. H. Bacon, Chadwell; J. J. Thompson, Sydenham; A. W. Martin, East Acton; F. Miller, Clapham; G. W. Benning, Romford; B. A. Reeves, 27, Chancery-lane; W. Arnold, 71, Tavistock-crescent.

THE GREAT GRIMSBY FISH AND STEAM-TRAWLING COMPANY (Limited).—Capital 100,000*l.*, in shares of 1*l.* The general business of trawling, fish merchants, and curers, manufacturers of oils, manures, &c. The subscribers are—J. Thompson, Wilmslow, 100; R. Revett, Ealing, 100; W. J. S. Hood, Grimsby, 100; G. Molyneux, North Grimsby, 1250; N. Melone, 6, Mincing-lane, 100; W. J. D. Andrew, 8, Great James-street, 50; J. Sykes, 43, Warwick-road, 10.

STEVENAGE WATERWORKS COMPANY (Limited).—Capital 6000*l.*, in shares of 5*l.* To supply said town and neighbourhood with water. The subscribers (who take one share each) are—N. Heatcoote, Stevenage; J. B. Denton, Stevenage; W. Jewitt, Stevenage; S. Stevenage; C. P. Stewart, Norwood; G. Smith, Stevenage; J. Mathews, Stevenage.

PAINTERS' UNION (LES PEINTRES REUNIS) (Limited).—Capital 1200*l.*, in shares of 4*l.* The business of painters, decorators, varnish and colour, and artistic work, makers, &c. The subscribers (who take one share each) are—A. Meunier, Brussels; J. M. Thomas, Brussels; T. Betty, 10, Union-court; W. Gordon, Kingsland; R. Horrocks, 26, Ludgate-hill; W. H. Warren, Highbury; W. J. Fell, Islington.

THE INDESTRUCTIBLE BOOT SOLE COMPANY (Limited).—Capital 10,000*l.*, in shares of 10*l.* To acquire and carry on a business situated at 143a, Kingsland-road, in connection with certain patents. The subscribers (who take one share each) are—B. D. Holroyd, 5, Great Winchester-street; E. S. Jones, 30, St. Swithin's-lane; G. B. Holroyd, Blyfleet; W. O. Forrester, The Boltons; J. Hardy, North Finchley; J. Barrett, Shepherd's Bush; C. F. Stevens, 53, Almora-road.

THE GRIMESHAWS BRIDGE PAPER COMPANY (Limited).—Capital 12,000*l.*, in shares of 5*l.* To acquire and carry on at Eccleshall, Lancashire, the general business of a paper manufacturing company in all branches. The subscribers (who take one share each) are—G. H. Openshaw, Blackburn; G. W. Nichols, Blackburn; E. J. Scott, Blackburn; W. Brooks, Darwen; S. A. Nichols, Darwen; J. Ratcliffe, Grimshaw Bridge; W. Almond, Darwen.

THE ATLANTIC STORAGE COMPANY (Limited).—Capital 70,000*l.*, in shares of 5*l.* To acquire of the Alum and Ammonia Company (Limited) the business of wharfingers, warehousekeepers, lightermen, barge-owners, &c. The subscribers are—A. A. Croll, Beigate, 50; G. H. Booth, Beckenham, 50; F. A. M. Nicol, 10, Leamington-road Villas, 50; E. Dawling, 83, Cable-street, 50; R. Booth, 4, Stone Buildings, 50; G. Anderson, 35, Great George-street, 25; T. Gongatt, 40, King Henry's-road, 50.

NEW SELF-TIMING ANEMOMETER.—An ingenious and very valuable mining instrument has just been perfected and patented by Messrs. JOHN DAVIS and SON, of Derby. It is an improved anemometer, which dispenses with the use of a watch. By holding it up in the current of air to be measured it instantly and correctly indicates feet per second or feet per minute. This anemometer is exceedingly portable, being only 4 in. in diameter and 1*1/2* in. wide. In general appearance it very much resembles the Biram anemometer, which was brought out by the same firm nearly 40 years ago, and is now in general use. Every colliery manager and engineer acknowledges the difficulty and inconvenience experienced in using the Biram anemometer, which necessitates the use of a watch; and, unless he is assisted by a man to carry his lamp, he has to hold his an-

emometer, watch, and lamp. The new instrument—Davis' patent anemometer—dispenses with the use of a watch or timer, and also of a lamp carrier; and, when held up in the circuit of air, without loss of time, indicates the velocity per second or minute.

Meetings of Public Companies.

GREAT LAXEY MINING COMPANY.

The annual general meeting of shareholders was held at Douglas on Wednesday, Mr. G. W. DUMBLELL (the Chairman) presiding.

Mr. J. D. ROGERS (the secretary) read the notice convening the meeting, and the directors' report and balance-sheet were taken as read.

The agent's report stated that in what was known as the deep mine the 271 north level had been advanced about 7*fms.* in the lode continuing strong and masterly as before, but with little ore. The 259 north level has been driven 8*1/2* fms. in the lode, worth 15*fms.* per fathom. Two stops in this level are each worth 8*fms.* per fathom. The 247 north has been driven 23*1/2* fms., 13 of which has been in ore of average value of 12*fms.* per fathom. The end of the 235 south level is now some 30 fms. from the line of the copper ground. The 235 north was held to Dumbell's shaft just before the close of the last half-year; since then about 4 fms. have been driven on the main part of the lode, and 5 fms. from where the division took place with the main level. The average value of the lode in the latter is 16*fms.* per fathom. A winze for ventilating the level below, and opening up the ground is being sunk. The stop above the 190 south is worth 12*fms.* per fathom. In the 190 north there is one stop worth 15*fms.* per fathom. In the Dumbell's shaft, with a view to unwatering the ground below the 243, we have arranged to push forward the 247 end from the deep mine, which is now about 70 fms. from the shaft. The 243 north level has been advanced 43 fms.; the lode of the latter half of this distance averaging 16*fms.* per fathom—3*1/2* fms., besides 2*fms.* of cross-cutting to prove the width of the lode, have been driven on 230 north level, 25 fms. of which containing a lode averaging 18*fms.* per fathom. The 215 north level has not yielded ore of any great consequence. In the 200 north there is a joint rise and stop worth 15*fms.* per fathom, and three stops worth 15*fms.* per fathom. There is a fourth worth 25*fms.* per fathom. The 185 north has been driven 40 fms., but only about 10 fms. was in settled lode, worth from 10*fms.* to 15*fms.* per fathom. The edit end has during the last six months been advanced 43 fms. It has not varied much in character, being wider in some places than others, but generally small. A vigorous and energetic development of the mine has been maintained, and the underground and surface machinery is in the best possible order. The new boiler has done good service. Although unable to point to any great discovery of ore, a great extent of ore ground has been opened up, with which a better metal market cannot fail to produce a better return in favour of the shareholders.

The CHAIRMAN said it was satisfactory to find that more lead had been raised than in the previous half-year, and at a less cost, which indicated an improvement in the producing powers of the mine. During the half-year ended Aug. 2 they had raised 800 tons of lead, against 700 tons raised for the half-year ended February. They had paid less in wages; and yet let no one suppose that arose from any stint of the men. He would assert that no mining company in the kingdom paid their men so well as they did. The cost of raising the 700 tons in the previous half-year was 11,847*l.*, while the present accounts showed 800 tons to cost them 11,157*l.* The general expenses were reduced from 8155*l.* to 7022*l.*, making a difference in cost of raising the lead and general expenses connected with it in the two half-years of 1828, 11*1/2*, 24. Thus not only was the cost of raising the lead less—and we raised more—but the general expenses were also less than in the year before. When the accounts were issued to the shareholders they knew that they had earned a dividend, but thought they would have to have recourse to the reserve fund to help us to pay it; but it was exceedingly satisfactory to him to be able to say that they did not require to touch a penny of the reserve fund. They had sold enough since Aug. 2 to pay the dividend and leave a handsome balance for working. They had run the risk of using the reserve fund, but he thought it was then for a purpose to be used for the steady working of the company and the declaration of a dividend from time to time. He had nothing more to add to what he had said—that they had sufficient money for present wants and to spare, not to spend, but to spare—but he should never hesitate to make use of the reserve fund for any purpose connected with the mine, whenever they should require it. He then moved that the directors' and managers' reports, and the accounts as laid before the meeting, be received and passed.

Mr. BARBER having seconded the motion, the CHAIRMAN said they would be glad to listen to any remarks.

Mr. ADAMSON said he had great pleasure in being present, and was surprised at the admirable statement of the Chairman. It was a very rare thing for a dividend to be forthcoming from a lead mine in these days. The usual thing was a notice of re-formation, with a very heavy call. He did not think that throughout the whole annals of lead mining that any company in England, Ireland, or Scotland could show a better result than the Laxey had done.

The CHAIRMAN, before putting the motion, said there were certain points connected with the Great Laxey of very great interest. They may not come to anything, but are such as to lead us to think it quite possible that the mine will resume its former richness. It was not advisable to talk much about it at present, but it was a fact that such a hope did exist.

The motion was then put to the meeting, and carried unanimously.

Mr. BARBER moved that the retiring directors—Colonel Moseley and Mr. Broadbent—be re-elected, which, having been seconded by Mr. NOBLE, was carried unanimously.

The auditors—Messrs. F. Falkner and M. M. Bridson—were re-elected, as were also the managers—Capt. Reddick and Penketh.

The CHAIRMAN said that the real business of the meeting was over, but there was one thing he wished to mention, and that was to tell them they were aware of certain things taking place and about to take place in the Tynwald Court calculated to injure the company. It was proposed to declare Laxey port, and levy harbour dues there. If the Manx Parliament should force them into anything unfair in connection with it they would appeal to the Board of Trade. Although they had spent 20,000*l.* on the harbour they would never object to reasonable dues. The meeting then dispersed.

GAWTON COMPANY.

The ordinary general meeting of shareholders was held at the offices of the company, Austin Friars, on Wednesday,

Mr. EDWIN F. COLMER (the secretary) read the notice calling the meeting.

The CHAIRMAN said that since the last meeting the recommendations of Capt. Rich had been carried out—that a winze should be sunk in the bottom of the 117 to prove whether or not the course of ore which they passed through 150 ft. in length in the 117 continued in depth. That winze was now sunk a depth of 15 fms., chiefly in the lode, and the course of mundic had been proved to continue in depth. The drivings east in the 117 and in the 132 were not of so satisfactory a character. The lode fell off very considerably in its yield of mundic, and the outlay which the company had made in sinking this underground shaft and in driving this to deeper levels, had not been of a remunerative character. But within the last two months a considerable improvement had taken place in the drive, and they now had there a lode of value, whereas up to that time it was of no commercial value. To make up for this disappointment the 95 east had opened up a very rich course of mundic, valued at fully 12 tons per fathom. The continuation in length eastward was demonstrated by a rise having been put up in the 105 fm. level, 10 or 12 fms. in advance of the 95 fm. level end, where the lode was fully 10 tons to the fathom. Another great compensation, and a point from which little or no good had been realised to the company up to a comparatively recent period, were the workings in the western part of the mine—round the engine-shaft. The point where they had been getting the ore from in the eastern part of the mine was a long distance from the engine-shaft in the western part of the mine. Now, a discovery in the western part of the mine, or round the engine-shaft, was of great importance, inasmuch as they had a much less distance to bring the stuff before it could be drawn to surface, and where they were dealing with an article like arsenical mundic, and with a product which was not so depressed as copper, it was only by economising even in a comparatively rich mine that mines could live at all. Now, in this western part very important discoveries had been made, and discoveries of such magnitude as to enable the company to keep not only their furnaces hot, but also to make a better show of increase in quantity than they had ever done before. The part which he would call their attention to was described in Mr. Bawden's report as the 70, west of engine-shaft, where in the end there was arsenical mundic varying from 8 to 10 tons per fathom. Would it had been copper instead of mundic, but they must take things as they were, and returns had been made for a lengthened period wholly on the southern part of the enormous lode, leaving the northern part for the past year or two untried altogether. The northern part of the lode was the part from which the copper was raised which gave profits in Gawton, and yet remained to be seen whether or not there was not a comparatively rich copper mine standing in the northern part. That was an important point to direct attention to, but at the present moment, unsatisfactory as things were, and he thought that anything connected with business was unsatisfactory which did not leave a profit. Unsatisfactory as things were, he was not without hope that Gawton could be made to pay from the arsenic, and he was not without hope that there might be discoveries of copper which would give the mine a new and important life. Mr. Bawden had told him that during the past two months, they had made a profit of 26*l.* The cost-sheet which had been paid to day was certainly 100*l.* less than the average of the cost-sheets had been for the previous six months, and the returns for the last two months had increased; and the agent said that if they could get these returns, and judging from present appearances, it was reasonable to hope that at the next meeting they would have a better tale to tell. The accounts had caused the board considerable anxiety, and the directors had caused letters to be written to the agents, telling them emphatically that, if they could not make the returns meet the costs, they must "shut up shop," and that the company could not go on trading at a loss. But the opening up of a mine was one thing, and the proving that the works could be carried on at a profit was distinctly another; but Gawton had now been living so long that he thought the mine had a right to be placed in the latter category. A great deal had been done towards opening it up, and it was now time to see whether the works could not be carried on at a profit or not.

Mr. Bawden, the manager, was present to answer for himself. It was useless to call in any more doctors, because everything was known connected with the workings, and if prices were better the mine would be in a much better state. But even as prices were at present it was shown that Gawton could live, but it could only live by exercising economy, and increasing the returns and not in-

creasing the costs. As regarded the directors, one of the number, Mr. Robinson, had resigned, and in his place the shareholders would be asked to elect Mr. Goslett, a gentleman in whom he was sure they all had the greatest confidence. He moved the adoption of the report and accounts.—Mr. ROWLANDS seconded the motion.

Mr. HEAP thought the directors ought to remit their fees till the mine was in a paying condition. He moved a resolution to that effect.—Mr. COLEMAN seconded the motion.

Mr. MOSES BAWDEN (the manager) read his report, and commenting upon it said they had not six furnaces at work till about two months ago. After the six furnaces were started the produce for the four months was brought up to 150 tons, and the costs were reduced from 60*l.* to 47*l.* He did not say that they would decrease the cost, but he did hope that they would increase the output of arsenic. If they could get only a very small discovery of copper ore it would be a clear profit to the company. For the purpose of making such a discovery they were driving a cross-cut north at the 105 to cut the north part of the lode, or the north lode, from which they had all the returns of copper in former days. They were now about 10 or 15 fms. from it, and were driving a cross-cut from the 105 to intersect it. Those 15 fms. would be driven at the rate of about 3 fms. per month. The cost of driving would be about 10*l.* to 11*l.* per fathom.

It would not be a great outlay, but it would be a judicious outlay. With respect to the winze in the bottom of the 117 it had been sunk 15 fms., of which 12 fms. were in the lode; they had proved that the course of mundic held down there, and no doubt it would be taken away with profit to the shareholders. He considered the prospects of the mine were never so good as now. As a matter of fact, the accounts had been made up so as to show the worst side, because as a matter of fact a further 30*l.* might have been brought to credit. At any rate, the substantial point was, that they had in the last two months, made a profit of 26*l.* He himself had only had the control of the mine since last June, and instead of working only four furnaces they were now working six, and he thought they could see their way to continue the working from the arsenical mundic which had been broken in the mine and paid for, and he might say that, in addition to the 30*l.* which he had mentioned, they might have taken credit for a further 700*l.* for arsenical mundic broken in the mine and paid for.

The CHAIRMAN said that it certainly was as much to the credit of Mr. John Bayley, the lord, that he had taken no dues, and in that respect he was

700 tons that have been crushed from the Knowlton have produced 27-10ths per cent. It is perhaps unnecessary for me to tell you that that is exceptionally good. With the exception of the Calumet and Hecla and Quincy there is no other mine in the neighbourhood that can produce as much as that. Under these circumstances, and in view of the interest which the results obtained from the Knowlton vein is exciting in the district, the directors are of opinion that it would be folly to allow so valuable a property to slip from their grasp on the eve of success, and we look forward with confidence to the immediate support and assistance of the shareholders in raising the necessary capital. We, however, at the same time wish the shareholders distinctly to understand that unless they subscribe the necessary capital to pay off the present indebtedness of the company in America, and to work the Knowlton vein, as recommended by the engineers, the undertaking must collapse from want of funds. We would accordingly suggest that a sum of \$30,000, (towards which we are willing to subscribe our quota) should be raised on mortgage debentures bearing interest at the rate of 15 per cent. You may say that 15 per cent. is an enormous offer, and some captious people may say that there is something bad at the back of this to induce you to offer so much, but the real object is to prevent any loss of time. At the present moment there are workmen who are in arrears of their wages. We wish to pay them off, to do away with all work that is not absolutely remunerative—and all work on the Champion Mine at this moment is unnecessary because it is not remunerative—and we want them to devote their whole time to the Knowlton vein. Therefore, \$30,000, and that at once, is required to pay off our liabilities. After that we want money to work the Knowlton vein: \$30,000. I have named, because we believe that would leave a good margin for any little accidents that may happen. Perhaps we may not want more than \$10,000, or \$20,000, but what we want is to be perfectly certain that we are sailing in deep water. Several of those interested have intimated their willingness to subscribe towards the new issue as soon as the present liabilities are discharged for, which \$30,000, will be sufficient. I hope you will perfectly understand that \$30,000, is absolutely necessary instantly. We must do that before we leave this room, and if the shareholders will not do it there are others who will on certain conditions which I shall lay before you. I only hope that you will see as we do the great advantage it will be to you to subscribe. I will now ask Mr. Rathbone to make his statement, and after you have heard it I shall be most happy to hear the remarks of any shareholder.

Mr. RATHBONE said that when they first started they commenced work upon the Champion and Knowlton veins, the latter of which had been pointed out as the richest vein on the property. At the same time it was expected that immediate returns would be made from the Champion vein, which had been considerably developed before they took the property. It was estimated by the engineers beforehand that there was about 2 per cent. of copper in the rock. The vein at that time could only be seen from the levels and shafts, and unfortunately they could not see 100 ft. below the surface of the earth, and when the ground began to be steeper it was found that there were intrusions of trap rock having no copper at all. They might see what appeared to be some rich ore, but after working for some time might come to the conclusion that they had been deceived, when just on the point of giving up their next shot might reveal an immense mass of rich ore. In that way they had discovered a large mass of copper weighing 10 tons. Owing, however, to the large masses of dead rock that had to be extracted and crushed with the rest the percentage of the yield of copper was very much lowered, and taken together with the fact that the price of copper had fallen 20%, a ton, it was very disappointing. Had the price of copper been what it was two years ago they would have been in a very different position. It had been stated on several occasions that the large amount of rock that had been taken out of the mine by the former company was worth a matter of 1 per cent. It would not pay to work 1 per cent. rock now, it might have done two years ago. Therefore, this rock was worthless unless they had something better to work with. They were not the only company influenced by the price of copper. There were two large companies in Lake Superior, both in very low water, and about to be wound up because they only have one vein to work upon, and it will not pay to work it at the present low price of copper. They, however, were in a different position, having several veins to work upon. Not being able to make the Champion pay, they must fall back on the Knowlton, which was being worked by another company a short way off at a profit. They had spent \$30,000, or \$40,000, absolutely upon machinery. One of the best experts in the district wished he had such a stamp-mill as theirs. The whole of this machinery was just as good for developing the Knowlton vein as it was for the Champion, so no money had been lost in that direction. The \$30,000, they wanted for putting up shaft-houses, and joining them with the railway, &c. He would strongly advise that the mine should be thoroughly opened out before it is commenced to work. They could then extract 400 tons of rock a-day, or 120,000 tons per annum, which taken at a very moderate figure, would pay really satisfactory dividends. They had a large air-compressor and 16 drills, and so the mine could be worked energetically. The mine he considered could still be made to pay. It was no use crying over split milt, but let them decide on some definite course of action. At present the miners' wages were in arrears, and to be out there in such a state of things was not a pleasant matter. He trusted that the shareholders would come forward and pay off in an honourable way their liabilities at once. They could then either sit down quietly and rework the mine by subscribing \$30,000, or they might sell it and get their money back with interest. If they allowed the thing to drop now they would not get \$6, in 12.

The CHAIRMAN: I should like you to give your testimony as to the character of the manager, because there was a great doubt as to whether he was the right man to have there?—Mr. RATHBONE: I may say that when I went out to the mine I went very carefully into the question of seeing whether the money had been spent extravagantly. I went into the minutest detail and reported to the directors, and I feel confident that our agent (Mr. Brand) has carried out our work in the very best manner he possibly could, showing great energy in doing it properly. No money has been misspent, and he is a thoroughly trustworthy and honest man. If the mines had turned out better we should have said that we had a splendid man there.

The CHAIRMAN: What we now propose is that you should authorise the directors to issue debentures to the extent of \$30,000, or any less sum they may think fit over and above \$10,000, the debentures to be a first charge on the whole of the assets of the company: the interest to be at 15 per cent., payable half-yearly, repayable at any time on six months' notice, and when paid off to carry a bonus of 20 per cent. That I think is sufficient to induce anybody to subscribe, and I hope and believe that after the explanation which has been given you, you will come to the conclusion that the security is good: \$30,000, has already been subscribed among the directors, but unless \$30,000, is promised the whole thing must go by the board. What we want is the shareholders to come forward and save themselves, and not let their property be sold for a mere song in the States.

Mr. LUKE stated that a very strong feeling had been expressed at a recent meeting of the shareholders in Edinburgh in regard to the expenditure in connection with the London office, and the amount of directors' fees and travelling expenses. He thought they would be more likely to come forward and assist in the present circumstances, if they could be assured that these expenses would be diminished.

The CHAIRMAN stated that the board had already been reduced by about half, and the fees of those who remained had also been reduced—in fact, latterly no fees had been drawn by them. The engineers' fees had also been reduced, and the expenses at the mines had been reduced as much as possible. It would be very short-sighted policy to allow the thing to go just when it was on the very eve of success.

Mr. PRESTICE said, that as it was only \$30,000, required immediately, and a great many shareholders were not yet present who might be willing to subscribe if they knew the liabilities were cleared off, would it not be possible to adjourn the meeting. With a little time we might himself be able to raise the whole of the money required.

Mr. PRESTICE, after some further discussion, moved the following resolution:—"That the directors be and are hereby authorised to enter into an agreement with the Earl of Denbigh, Messrs. Wolseley, Lavery, Ogden, Pyle, Hare and Cunningham for an immediate loan of \$30,000, on the following terms: A first mortgage over the whole of the assets of the company at 6 per cent. interest, payable half-yearly on the issue to them of 2346 shares as fully paid shares, the mortgage to run for six months certain, and then to be subject to six months notice, the mortgagees to keep the property open with watchmen and overseers, and to pay their wages and insurance of plant, horses, &c.; but not to be compelled to work the whole of the above, to be subject to a condition that if the shareholders on or before Oct. 14 subscribe among themselves not less than \$20,000, then the directors to issue debentures as a first charge over the whole of the assets, to carry interest at 15 per cent., payable half-yearly, repayable by the company at any time on six months' notice, and when paid off to carry a bonus of 20 per cent."

Mr. ROWNY seconded the resolution, which was carried *en cons.*

The proceedings then closed with the usual vote of thanks to the Chairman.

SIERRA BUTTES GOLD MINING COMPANY.

The ordinary general meeting of shareholders was held at the City Terminus Hotel, on Thursday,

Mr. F. TENDRON (the Chairman of the company) presiding.

Mr. JOHN SAUL (the secretary) read the notice convening the meeting. The report and accounts were taken as read.

The CHAIRMAN said: Gentlemen, before moving the adoption of the report and accounts, I wish to enable you, as far as I can, to clearly see the present position of the company, and to form a fairly sound opinion as to its future prospects; and to enable you to do so I must ask you to travel back to the period when we lost the Hanks mill, which was in the spring of 1882. For the five half-years preceding that accident the average quantity of ore stamped each half-year was 27,000 tons; its working cost about \$4 a ton; its value, \$6 a ton; and during that period you received an average dividend of 6 per cent. During the five years subsequent to the loss of the Hanks mill the average quantity stamped half-yearly was 17,000 tons; the working cost, \$7 1/2; and the average rate of dividend 4 per cent. per annum. You will at once see why there was an increase in the working costs; the dead charges, the expenses of management, the salaries, and other charges had to be spread over a smaller surface. The Hanks mill was a 30-stamp mill; the Hitchcock mill, on which we have been reliant since, was a 40-stamp mill. When the snow-slide swept away the Hanks mill, 10 additional stamps were put up at the Hitchcock, and until March of this year we have been entirely dependent upon the power of that mill. I think I mentioned to you that during this latter period the average dividend has been at the rate of 4 per cent. per annum, as compared with 6 per cent. for the preceding period; and I will mention here, incidentally, that the average dividend of the company since its commencement has been a little over 10 per cent. per annum for the whole of the 14 years of the company's existence. When that mill was swept away it was clearly useless to reconstruct it, or even to attempt to repair it. It was situated high upon the hill-side, and the ore bodies above the fifth level were all but worked out. Whatever remained was a very poor quality; and, therefore, it was idle to attempt to repair that mill; but it was decided to erect a new mill at the lowest level ground that the company possessed—to put up a first-class 60-stamp mill. That mill is approaching completion; 20 stamps were at work in March, 20 more last June or July,

and 20 more stamps will be completed certainly by the spring of next year. Now, what are we to expect when this mill is fairly at work? I told you that the important consideration was how far the orebodies between the seventh and the sixth levels would last us until we were able to avail ourselves of the ore laid open by the eighth level. That eighth level has taken about five years, and has cost us about \$15,000—\$10 paid for out of revenue—and it was only in March last that we began to derive any benefit from it. Some bodies had been laid open in the course of this driving, and these bodies were larger and far more promising than those that had been laid open in the seventh level; but the great object that we had in view was the Mammoth shoot—the master shoot of the property—and that shoot was met with, I think, about the end of April this year. In the seventh level it was from 850 to 900 ft. long, of a good quality ore of good size, and of fine character, and the fullest confidence was expressed that it would be as good in the eighth, and possibly better. It was making down all along where they were working it out in strength, and that appears to have been the case up to the time that the report was sent out. They had driven along it, and opened out by the side of this body for a distance of 225 ft.; then the vein deflected to the right, and they found it still expedient to continue the level under the footwall in the selvage, because it was easier of driving and they could make more rapid progress. They continued it for a further distance of 50 ft., then they made a cross-cut, and they found the pay body. It was then about 8 ft. wide; that was after driving 28 ft.: 4 ft. of this was too poor to send to the mill, 2 ft. of it was of average ore, and 2 ft. of it close to the hanging-wall was of poor quality. They went on for a further 75 ft.; this time in what was called the selvage, or south casing of the north portion of the vein, and when they had driven through 75 ft. they cross-cut again, and after passing through 8 1/2 ft. of poor mineral met what they considered the hanging-wall. I am not surprised at it personally, because in the seventh level there was a horse some little distance towards the west—that is, in the mountain, and this horse split the lode through. The horse was making upwards in a westerly direction, consequently it was natural to infer it would make downwards in an easterly direction, and I can only conclude that the body that has split the lode was this horse, and the present course of the level confirms this. I should prefer that this did not happen; but, as beyond the horse exceptionally good ore and a powerful vein were met with in the seventh level, we may hope that we shall meet with that good ore again beyond the horse, and that the vein will widen out again, and that we shall have ore of good quality. There is no reason why it should not be the same in the eighth level as in the seventh. Of course the further we had driven before meeting with a disturbance of any kind the better pleased we should have been. There is also the possibility of a good vein lying north of what they now consider the hanging-wall. Only knowing it by telegram we had no means of yet communicating with them, but we shall do so without delay. I will just read to you what was written by Capt. James in his monthly report for June, 1881. He refers to the 24th cross-cut, and considering the angle at which that horse was making up I should think it would nearly as possible correspond with the ground between the 15th and 16th cross-cuts in the eighth level. I have in my pocket the diary I wrote in California, and I specially referred to this horse at the time of my visit. It is almost, as it were, a counterpart or an indication of what is happening at the present time. I have made this as clear as I could to you, for I do not want to hold anything back. If we have good news you shall have it; if we have bad news it shall be made as intelligible to you as possible. I hope you will not be discouraged. Now having put before you the least favourable part of our position—for I do not call it so very unfavourable—it is only what we must expect in a big mine like this, let me just call your attention to how matters will turn out in the next 6, 12, or 18 months; that is, unless something unforeseen occurs. These two mills—40 stamps at the Yuba and 50 stamps at the Hitchcock—will work at least 5000 tons a month, working 30,000 tons in the half-year, instead of the average of 17,000 tons. That will reduce the working cost at least \$1 a ton. There is \$1 a ton in your favour at once. The average of the ore stamped at the Yuba mill at present has yielded \$9 a ton, and we have stamped more than 10,000 tons. If you have ever believed in the prospectus of a new company, and have gone by assays, you will know the difference between the assay of 10 tons of stuff and the assays shown by stamping over 10,000 tons. You know that on the one you can place reliance, and the other, if you are wise men, you will not place any faith in. Now, you may take it for granted that the ore that will be stamped at the Yuba mill will be ore averaging at least what I have always led you to expect—that is, \$8 ore—and the working, including the tunnel, when once we are in full swing, would not exceed, I hope, \$4 a ton. There is a good margin of profit, but pray do not run away with the idea that you are going to have large dividends. I may safely say, however, that you will have a better dividend—the next six months—that you certainly will have—but before we pay large dividends we have got to recoup the outlay on the new mill; we have got to recoup the expenditure on the tunnel, and we have to press our friends abroad—Mr. Johns and Capt. James—to carry on their explorations, to drive the sixth and the seventh levels forward, and not to hesitate to do whatever is necessary to give us such reserves of ore that you shall feel that the money paid to you is *bona fide* dividend, and that your capital is safe. I shall never be satisfied with the position of this company until we have such reserves that you may know that a large proportion of the \$20,000 capital of this company is in sight. Until that is so you are not getting a dividend, but refunding capital. You never know what will happen. There is not an able man in California than Mr. Johns. He has always expressed the opinion that the eighth level would be better than the seventh, and no doubt is a little disappointed at present. There is not one word of blame due to him, and I only hope he will not hesitate to say what he thinks, and that he will never have to say, "If I say what I think and it is not realised they will blame me." I am always thankful to man for his frank, freely, and truly what his impressions are. We will now drop that No. 8 level, and see whether we have got a second string to our bow. The feeling in my mind is very strong that, although the Mammoth shoot is a very fine shoot, something may happen there, and I should feel it safer if we had a second shoot—that the Tinnie, Cliff, and Willoughby shoots were making again at the eighth level. Near the junction of the two veins we had very good ore indeed. In the Cliff vein it was not a large body, but it was exceedingly good. Beyond it was a small shoot of fair ore, called the Willoughby, and they made a rise from the eighth to the seventh level for 400 ft., and then at a distance of 200 ft. from the eighth level they made an intermediate level, and then they came upon this body; I take it to be of the Cliff shoot. They have risen from that to the seventh level, the whole of the way in the ore body. It is about 4 ft. wide, of \$8 ore, and opens out a large body of ore there. But the most interesting feature of all, and one I have spoken of at preceding meetings, was the difference of opinion between Mr. Johns and Captain James about whether that part of the eighth level was being driven in the Ariel, which is our great vein, or the Cliff, and it turns out conclusively that, for a considerable distance the level was driven in the North Cliff vein. I mentioned to you that sooner or later a cross-cut would be made to prove whether the Ariel lode was lying to the south. That cross-cut has been made, and has found in the Ariel ledge a shoot of fair quality ore, which are good enough to call at present \$8 to \$8, but which somehow mills very much better, and is making its strength downwards. According to the last report they had sunk for six weeks in this body of ore 25 ft. (that is about 5 ft. a week), and we heard nothing about water. That was another very satisfactory feature. It is about 75 ft. long. As they go up it dies out, but it is making down in strength. The ore is very like the Tinnie ore which was the very best shot in the old mine. I think that is a very satisfactory feature. In fact, at present the lode laid open by that level gives over 475 ft. of fairly profitable mineral, with an average width of 4 ft., and is proved by the stamping (and that is conclusive), to be at least \$8 or \$9 ore. The rise No. 4 goes up under the Mammoth shoot, and has passed up underneath the shoot because they could rise up so much more rapidly. They are beginning to open up steps in it, and there again the ore that comes from that level is carried to the Hitchcock mill to improve the quality of the ore that is being stamped in that mill. The Hitchcock is situated at the mouth of the sixth level, and all the ore that is got out in the seventh level has to be hauled up an incline to the sixth level, and we shall get something like 2500 or 2700 tons a month so long as they can find ore there, but that will not be \$8 ore. However, I hope they will use up all the ore, however poor they are, that will yield a profit, because it gives a larger surface to spread the dead charges over, and there is no reason why we should sacrifice the long existence of the company to the desire of making money rapidly. If they find \$8 and \$9 ore I hope they will be perfectly content to stamp it with a moderate admixture of ore from the Mammoth shoot. I do not know that I have anything special to tell you further with regard to the Buttes Mine except to read the telegram of the clean-up. For the month of September the receipts were \$32,536, and the expenses \$19,563—the average cost of mining and milling, according to their figures, were \$8 40, and the expenditure on the ninth level 43 tons making \$3 53, which is a little under the \$4 that I told you of. That is the working for the month of September: 5000 tons of ore were actually stamped, and the average produce per ton was \$8 12. You will now see at once that the policy of stamping the poor ores at the Hitchcock mill is carried out to bring the average down from \$8 to \$8. I have I think given you a basis for showing that the company is on the road to prosperity, the expectation of which has been held out to you for the last two or three years. I now come to the Plumas Eureka, and, perhaps, it would be politic of me to talk to you in rather a depressing tone, as the dividend is reduced; but for the life of me I cannot. I feel very cheerful about the prospects of the Eureka, and I feel very hopeful as to the future. But feeling hopeful is a very different thing to the actual assurance of prosperity. There is one point on which we have clearly made up our minds, and that is, that we will have reserves of money in the company, and that we shall be strong financially. We are beginning new works in the Eureka Mine, and new works in the outside properties. We have over \$25,000 in hard cash for the purpose of ensuring our position and developing our property, and to take advantage of any circumstance that may arise. At the last meeting I forewarned you that it would be necessary that you should face smaller dividends, and I will take upon myself to assure you that unless something unforeseen occurs the policy of the board will not be to reduce that dividend below the 7 1/2 per cent., to which we consider you fully entitled. If things go the way we have every reason to expect we shall, at all events, for some little period (what may happen two years hence nobody knows) we shall not reduce the dividend, even if in one half year we may a little trench upon the profit and loss. We know from the workings of July and August that we shall earn the 7 1/2 per cent. this six months, and probably carry forward a moderate amount; but we are doubtful as to the six months following that, because we shall only be able to work on the outside properties this winter until about November, and probably we shall not be able to resume bringing ore to the Mohawk mill again from these outside properties until May next year. During the next summer most vigorous work will be carried on at these outside mines to endeavour to put them in a state to be worked for the next 12 months. The Chairman then referred to the works in contemplation, including the construction of a new tramway 750 ft. in length. The receipts for September amounted to \$36,556, and the expenses to \$22,652. The Mohawk mill had stamped 4675 tons in the month, and the average value of the ore was \$7 40, while the cost of mining and milling was put down at \$4 42 per ton, which showed that the exploratory works were beginning to cost money. The shareholders must not be disappointed or disheartened if they saw that in the winter months some of the returns left no profit, as during that time they would not be dealing with the richer ores from the outside mines. Having referred in some detail to these outside mines and their prospects, the Chairman expressed the indebtedness of the company to Mr. Johns, Capt. James and Hosking, and, in conclusion, moved the adoption of the reports and accounts.—Mr. CHARLES WRIGHT seconded the motion.

Mr. FREWKA said that he and the shareholders generally felt greatly indebted to the Chairman for the clear, and he might say masterly way in which he had put before them the affairs of the company. With the information given

by the Chairman, added to that given in the plans, they were enabled to lay the meeting perfectly masters of the situation. He also congratulated the Chairman upon the politic mode in which he met the shareholders. The report, those explanations he felt perfectly satisfied with the position of the company. There were, however, one or two points in the report which required some explanation. For instance, in Mr. Johns' report it was stated "that he had thought for 12." It must be supposed from this that there was something in the back ground, and he came prepared to hear something rather disappointing, but from what the Chairman had told them they must, he thought, look at the matter very hopefully. He presumed that Mr. Johns' remark had reference to the coming winter.

The CHAIRMAN said that was so; it had reference to the coming winter.

Mr. FREWKA said that with regard to the question of erecting snow sheds, would they not run the risk of this expenditure becoming valueless by the usual fall of snow, which would sweep away all the buildings! However, he had no doubt that the officers had had their attention directed to that contingency.

Mr. JOYCE asked whether there was any chance of new workings being opened in the Eureka Mine?—The CHAIRMAN, in reply, said that Mr. Johns would tell them that he had done about six miles of prospecting during the last year. They were, however, pushing him on to do a little more. As he had already stated, they were sinking two shafts in the Eureka Mine, and they were doing a vast amount of exploratory work. As to the snow sheds over the tramway, there was no probability that there would be any snow slide to carry away the whole of the sheds. Of course, if there were a few feet of the sheds carried away that could not be helped. In places where the rock would allow the sheds would be cut in the rock itself. He might mention incidentally that he hoped before next winter to go to the mine again to see for himself whether everything was going on well.

The motion was then put, and carried unanimously.

The CHAIRMAN moved that a dividend of 6d. a share should be paid to the Sierra Buttes Mine shareholders, payable on Oct. 10.

Mr. MAITLAND, in seconding the motion, thanked the directors very much for the manner in which they were conducting the operations, and he had no doubt that success would please them more than anything else.—The motion was carried.

The CHAIRMAN moved that a dividend of 1s. 6d. per share should be paid to the Plumas Eureka shareholders, payable on Oct. 10.

Mr. RYAN, in seconding the motion, said he was extremely well content for his own part to leave the property in the hands of the present board. It was, he thought, an extremely fortunate circumstance that the

the solicitor, and therefore if any mistake had been made it had not been made by the directors.

Mr. HOLMES (solicitor) said that everything which was done in connection with the issue of debentures was done under the advice of eminent counsel.

The resolution was then put and carried.

A vote of thanks to the Chairman and directors closed the meeting.

ALAMILLOS COMPANY.

The report of the directors prepared for presentation at the meeting on Thursday next states that the operations carried on at the mines during the six months to June 30 last have resulted in a profit of £2652. 4s. 7d. This is less than the profit made in the previous half-year, the falling off having been caused by the reduced quantity of ore extracted from the mines, and the lower prices at which the products have been sold. With a view to increase the productive power of mines San Victor engine-shaft is being sunk from the 80 to a 90 fm. level, and the work will probably be completed by the end of this month. After intersecting the lode a level will be driven east and west of the shaft to develop it, and judging from its appearance in the level above it is likely to be found very productive. The tributes continue to return good quantities of ore, and this has been an important source of profit to the company. The reserves of discovered ore are again estimated at 3000 tons.

The product of lead from the ore smelted has been well maintained, and the cost of working has been slightly reduced. The price of lead has been lower during the past half-year than at any time during the last 100 years. It has been a severe struggle, therefore, to work the mines at a profit under such disadvantageous circumstances.

The balance-sheet shows that the amount standing to the credit of the profit and loss account on June 30 last was £2841. 4s. 11d. Out of this the directors have declared a dividend of 1s. 6d. per share, payable on Oct. 4, 1884. They have placed to the reserve fund the sum of £100. £2725. Leaving a balance to be carried over of £162. 4s. 11d.

FORTUNA MINE.

The report of the directors prepared for presentation at the meeting on Thursday next states that the profit on the half-year is £381. 16s. 5d., being a slight decrease on that of the previous half-year. In view of the low price which has prevailed for lead the directors feel that it is cause for congratulation that the mines continue to be worked with such profitable results. The Canada Incosa Mine has been rather poor for some time past, but the sinking of Louwens' shaft to the 110, which was completed in July last, may be expected to open up a run of valuable ore.

On ground when the new level has been further extended, there has lately been an improvement in an important level at the Salidore Mine—the 160—and here, too, judging from the productivity of the lode in the upper levels, a large body of ore will probably be developed. At the San Anton and San Francisco Mines operations have been regularly pursued, and a large production of ore has been maintained. The reserves of discovered ore are now estimated as follows:—Salidore Mine, 6000 tons; Canada Incosa Mine, 2500 tons; San Anton and San Francisco Mines, 1000 tons; total, 9500 tons.

The machinery both at the mines and the smelting-works has been maintained in a state of efficiency. The audited accounts show that the balance at the credit of the profit and loss account on June 30 last amounted to £3934. 3s. 7d.; out of this a dividend of 2s. 10d. per share has been declared, payable on the 4th inst., £411. 13s. 4d.; placed to reserve fund £2004 = £3741. 13s. 4d.; the balance to be carried forward being £192. 10s. 3d.

LINARES LEAD MINING COMPANY.

The report of the directors prepared for presentation at the meeting on Thursday next states that the operations carried on at the mines for the half-year ended June 30, have resulted in a profit of £2233. 13s. 1d. Exploratory operations have developed sufficient ore ground to compensate for what has been taken away, hence the reserves are again estimated at 5450 tons. At Warne's engine-shaft the lode has been very rich in the 130 driving west, and has averaged 3 tons of lead ore per fathom during the six months. The Quinientos Mine continues to yield a good return, and shows indications of continued productivity. The directors have relinquished possession of the Majada Honda Mine, and have disposed of the engine which was upon it on advantageous terms. The smelting of the ore has been conducted at the Cordoba works with regularity and economy, and the lead made has been shipped to England at favourable rates of freight. During the half-year 1875 tons of ore had been raised from the Warne Mine. A pair of engines coupled for hauling the staff at Peñal's, Warne's and San Francisco shafts; these have been set to work, and go admirably, leaving the main engine for the drainage alone. At the Quinientos Mine 750 tons of ore had been raised during the half-year. The exploratory works are kept on with sufficient regularity, and the surface works with great care and economy, and the machinery is in very good working order. The accounts show—Stock on hand, Dec. 31, 12,584. 14s. 3d.; mine costs, 13,197. 18s. 5d.; smelting, freight, and carriage, &c., 7744. 10s. 10d.; total, 20,942. 9s. 3d. Lead sold, 25,305. 5s. 10d.; sundry receipts, 2502. 16s. 6d.; stock on hand, 10,204. 14s. 3d.; total, 35,760. 16s. 7d.; showing profit, 2233. 13s. 1d.

AKANKOO (GOLD COAST).—The report of the directors and manager prepared for the forthcoming meeting has been issued. The directors state they hope before the meeting to receive an account of the first crushing, and to be in receipt of a shipment of gold. It is desirable to sink a shaft to strike the reef at a lower level, which will require the purchase and sending out of pumping machinery, which would also be available for hoisting purposes. It will be necessary to raise fresh capital for this purpose, whatever may be the result of the crushing of the quartz already excavated. Heavy and unusual floods have greatly delayed the progress of the works, but the whole is now a thoroughly sound and going concern. The board have not deemed it expedient to increase the expenditure by working day and night shifts, and increasing the number of stamps until the results of the crushing have put the success of the operations beyond dispute. The manager's report says the mill has been erected in a complete and substantial manner; the foundations involved a great deal of care. The whole of the 20 heads were erected, but the tables, troughs, &c., were only completed for the 10 heads adjacent to the engine. The rains caused us several weeks delay. The foundations were proved in a way I hope they never will be again, and found perfect. I was expecting to have before leaving for England a first crushing of 200 or 300 tons, and to have brought the results with me; the rains prevented this, however. The engine and stampers seem to work well. An accident had occurred to the engine owing to the cracking of the piston, but was repaired temporarily. A new piston has been sent out. The gold, so far as we have seen is free and coarse, and amalgamates readily. About 3000 tons of quartz were stacked close to the mill. The outlook was exceedingly hopeful. I recommend that a shaft be sunk to strike the reef, if it continues its present pitch at a depth of 80 to 100 ft. I believe that the result would be a rich return on any reasonable amount of capital expended. The report concludes by stating that the company has every reason to be satisfied with the present staff at the mine.

ECTON COMPANY.—The report and statement of accounts prepared for the forthcoming meeting has been issued to the shareholders. The accounts show—Leases of mines at cost, 10,500£; plant and machinery, 3146. 17s. 2d.; cash at bankers, 1407. 3s. 6d.; ditto at mine, 100£; investment 1000£. new 2½ per cent. at cost, 893. 15s.; interest, 6. 2s. 5d.; furniture at office on mine, 302. 15s. 6d. Balance being total expenditure to date for labour, salaries, directors' fees, &c., 2844. 2s. 4d. On the other side capital paid up, 18,244. 10s., and sundry credits, 854. 6s. 4d. The directors state that they congratulate the shareholders upon the highly satisfactory condition of the company's property as well as the completion within the past year of a large part of the heavy and complicated work of restarting the Ecton Mines. They have instructed Mr. W. Sowerby, C.E., F.G.S., to prepare a perfectly independent report upon the present position and future prospects of the mine, which will be presented to the shareholders at the meeting. The expenditure during the past year is close upon that estimated in the prospectus as needful; but during the ensuing year, as further levels are cleared and fresh discoveries made, it will be necessary to employ a much larger force of miners. They believed that the work of developing the full resources of the Ecton Company would prove to be one of the greatest mining works undertaken in modern times. They conclude by saying that they believe the future that before the shareholders is clearly satisfactory as could be desired.

EST UNY.—A special meeting was held at the office of the purser on Monday, Mr. R. S. Teague in the chair, when it was resolved to wind-up and close the mine, a committee consisting of the purser, Colonel Fludger, Mr. John Tonkin, and Captain Hooper being formed for that purpose. The request of the Wheal Uny adventurers for permission to work the Ollijah engine and to put a dam in that part of the mine was declined, and it was resolved that the machinery of the mine be again offered for sale to the Wheal Uny Company, and in the event of their declining to purchase it be offered to the lords of the mine in accordance with the terms of the lease. A special meeting to confirm or otherwise these proceedings is to be held on Oct. 22.

GRAN WESTERN ELECTRIC LIGHT AND POWER COMPANY.—At the meeting on Monday (Mr. J. B. Braithwaite jun., in the chair), in moving the adoption of the report the Chairman said they had reduced the expenses considerably, and they were glad to say the receipts, so far as their lighting stations were concerned, had almost trebled during the year. The assent of the Court to the reduction of the capital of the company was given on Aug. 6, and the liability which the shareholders were under with respect to their holdings had now been wiped out. He then referred to the claim which the liquidator of the Devon and Cornwall Electric Light Company had preferred against this company, and stated that the matter had given great anxiety to the directors. They had surrounded the fully-paid shares which had been allotted to the company by the Devon Company, and the 500 shares purchased by the late board, and on the completion of the liquidation of the Devon Company they would allot to the shareholders in that company 2000 fully-paid shares of the company of 2s. 10s. each. The result of this was that the liquidator of the Devon Company had withdrawn his claim. They had now for the first time control of their own property, and could go forward with the business of the company. They had opened negotiations with the Brush Company, with the result that in exchange for the right which they had given to that company to light railway trains in this company's district, and put up plant for carrying out this object, the Brush Company had surrendered to them 570£ in fully-paid shares in this company. They had made a cash loss of 538£, and a paper loss besides of 520£, the amount written off for depreciation of plant, making total loss for the year of 1067£, which they had written off against the amount received in shares from the Brush Company. The balance which had then remained to the credit of profit and loss they had written back to meet

the shares which they had arranged to give to the liquidator of the Devon and Cornwall Company.—Mr. C. H. Stewart, in seconding the motion spoke of the difficulties against which the present directors had to contend owing to the acts of the late board.—A short discussion followed, in the course of which one shareholder thought that while the company had still a little money left it had better be divided amongst the shareholders.—The Chairman, in reply, stated that they showed a loss on the year of 1000£; there had been an increase of 1700£ in the amount of stock in plant, and there was also an increase of 1500£, in the amount owing to them. If the directors thought the company could not possibly be made to pay they would recommend the shareholders to wind-up. The expenses last year were 1676£, and they anticipated that this year would be between 800£ and 900£, and their receipts were increasing. They had never had one customer give up the light because he did not like it; on the contrary, many of them had increased the number of their lights. The report was then put to the meeting, and declared carried unanimously, and subsequently the retiring director and auditors were re-elected.

FOREIGN MINES.

CAPE COPPER.—OOGIEP, Capt. Lanksbury, Aug. 31: In the 105, west of new shaft, the ground is very compact and hard for driving. There has been no material change in the 105, north-east of No. 36 winze, since last report. The trial work in No. 36 winze below the 92 presents veins of copper ore, but are not sufficient to value. The 92, north of new shaft, has not yet intersected anything of importance. The 60 winze sinking below the 80 has declined in value, now worth 2 tons copper ore per fathom. The driving of the 80, west of No. 24 level, has been resumed in ground worth 2 tons of copper per fathom. The ground in the 80, north of No. 39 winze, became during the month much easier for driving, and having now attained its object in proving the surrounding rock without intersecting anything of consequence, we have deemed it prudent to suspend it. The 60, south of No. 17 level, east of new shaft, yields 2 tons of copper ore per fathom. The rock in the 80, 15 winze below the 60 has yielded during the month a little copper ore, and having now attained sufficient depth, the men have been withdrawn, and put to drive south of No. 20 level in the 80 to effect communication with winze. The 65, east of new shaft, is unproductive. Considerable progress has been made during the past month in driving the 65, west of flooan course, in consequence of having met with disordered ground. The 65, east of No. 40 winze, yields saving stuff; the ground is hard for driving. The 60 winze sinking below the 26 produces 1½ ton of copper ore per fathom, but in consequence of a great quantity of water issuing from the rock slow progress is being made. The 26, south-west of new shaft, yields 1½ ton of copper ore per fathom.

SPECTAKEL.—Capt. Lanksbury, Aug. 25: The 86, south-west of incline, has not yet met with any copper ore; the rock being very hard, progress in driving is slow. The 75, south-east of incline, yields saving stuff, but not sufficient to value. The stopes in back of 75 yields 1½ ton of copper ore per fathom. Stope in bottom of 64 yields 3½ tons of copper ore per fathom, and stope in back of intermediate level yields 1 ton of copper ore per fathom. Spots of copper ore are found in the 53, south of cross-cut, and the ground is of a more congenial character.

TRAIL MINES.—Capt. Lanksbury, Aug. 31: The ground in the 31, south of winze, has again improved in value, now worth 2 tons of copper ore per fathom. The rock in the 33, west of No. 1 shaft, is disseminated with specks of copper ore. The sinking of No. 2 trial shaft is being carried on vigorously; at times the ground yields large patches of copper pyrites, and again declines, being very fluctuating. Tolerably good dispatch has been made in driving the 17, north of shaft, during the past month, and traces of copper ore have been found, but on the whole, the ground at this depth, so far as is yet seen, is of very little value.

—Returns for August: Oogiep, 120 tons per 28 per cent.; Spectakel, 144 tons per 41 per cent.—Bills of Lading Received: 837 tons of ore per Esempio, 430 tons per L'Esperance, 480 tons per James A. Marks, and 590 tons per Taema.

—Arrivals at Swansea: The Hind and Glenudal.—Arrivals at Port Nolloth: The Hondeklip, Cumberland, Ianthe, and S. T.

COLORADO UNITED.—Mr. Macrae, Sept. 20: It is with great pleasure that we are at last able to report the mine clear of water. It does not appear to have materially damaged the workings. The shaft has had new timbers put in where needed from top to bottom, and everything is fixed up for the winter. Early next week we shall start driving the 14th level again [a cable despatch published last week advised that work had been resumed in the 14th level], and we hope that in less than six weeks' time we shall strike the pocket of mineral below 13th level.—The Mill: During the week some 110 tons of dirt have been put through the concentrator, which yielded about 1000 lbs. of lead headings, and 6000 lbs. of zinc headings. We have been rather delayed by the conveyor screws becoming worn out, and next week we shall replace them with new ones.—Tributaries' Pitches: At the 10th level west W. Payne and Co. are still engaged in clearing away the dirt from the stull and repairing the level. In a few days they will be able to start work on their ground. Pollard and Co. are still engaged in back stopping in the 7th level east. The ground is easily worked, while the streak of ore and quartz varies considerably, from ½ in. to 3 in. in width. The conveyor informs us that W. Rowe and party driving west on the Blaine lode have about 6 ft. to drive to hole through, thus making in all a distance of 25 ft. from the east end of the winze. By Tuesday or Wednesday (Sept. 23 or 24) they will connect with the other drift. I have omitted to mention the fact that the boilers in the Union tunnel have suffered considerably from a strain. The north boiler has been the more susceptible to the strain, and we dare not fire under it. We can, however, run with 60 to 70 lbs. of steam without danger. We are having a boiler down from the Higher Terrible (belonging to the manager), which will be put up temporarily while the boilers inside are being repaired.

—Ore Shipments: Company's ore, 147 sacks of zinc headings weighing 6 tons 265 lbs.; leasers' ore, 44 sacks.

CORPORATION OF SOUTH AUSTRALIAN COPPER.—Capt. Bryant, Aug. 23:

Masey's Shaft: In the 50 the south stope in the bottom is worth 2½ tons 24 per cent. per cubic fathom. In the same level north the stope in the bottom is worth 2½ tons 24 per cent. per cubic fathom; of late this stope has been pinched and poor, but during the last two or three days it has slightly improved, and looks promising for further improvement.—Fifty Fm. Level South: In order to work this stope economically, and for security previous to opening up the stope below the level to its full width, we have commenced a winze, which we purpose sinking 2 fathoms, and drive north and south to form two arches; we hope to have this work accomplished and the stope in good working order in three weeks; we have set to sink at 8s. 10s. per fathom. We have not commenced sinking the winze in the bottom of the 60 and driving the 70 south owing to the scarcity of miners. Several men have left for sheep stations and the Hergott Spring Railway. There are other contracts we would set at reasonable rates. We have put three men to stope in the bottom of the 45 fathom level south in order to get stuff for dressing speedily.—Surface: The machinery is in good working order, but our returns have been decreased owing to counter attractions offered to labour generally experienced here at this time of year.

DENVER GOLD.—F. S. Orben, Sept. 21: There has been no change under ground of consequence to report. Work for the last week progressed satisfactorily. The milling for the eight days ending Sept. 20 amounted to 246 tons ore, yielding 91. 5th oz. good: 5321 tons smelting ore were sold for \$266. 85.

DEVALA MOYAR GOLD.—Mine Manager, Sept. 12: At Salomon's reef the drive from the lower tunnel to catch the bottom of the winze has been driven 4 ft., and we expect to make better headway in future now that the drainage has become less heavy. The 60 ft. level has been extended 6 ft. on the line of the new reef into the hill. The reef is very irregular; some days we get excellent prospect, as much as 1 dtw. to the dish, and on others it prospects very poorly. We are driving in a well-defined channel with two good walls, but it is not filled with clean quartz, but with a mixture of quartz, gneiss, iron pyrites, &c. The 140 ft. level has been driven 9 ft.; the channel here is about 6 ft. wide, filled with quartz and country rock, like rubble. Yesterday we obtained good prospects. Harewood tunnel has been driven 3½ ft.; I will put on two Europeans and hole through to the reef within the next month or six weeks. We are trying to bring about a universal reduction in the price of labour throughout the district, but there are still some difficulties in the way.

DON PEDRO GOLD.—Telegraph, Oct. 9: Produce for the month of September, 650 cts., from surface exploration.

EBERHARDT.—Frank Drake, Sept. 13: Drift 2 from 6000 ft. west advanced 20 ft.: total 826 ft. No change in the hardness of the rock, nor in its general character. The ore producing the assays given Aug. 30 showed better in quality than as yet in developed amount, but we still have ore at this point showing fairly well, and the coming week I shall have our work bear more to the left, or as the ore may show best. To find some mineral rock as we so often have, and still not as yet open into some respectable body of it, is to us all, I scarcely need say, a hard and disappointing fact. But I am doing all in my power for a better result. Raise 5 advanced 5 ft., making total 60 ft.; the ground same as last reported.

INDIAN CONSOLIDATED GOLD.—Sept. 12: Grove Section, No. 1: The north drive in the new make of stone has been extended 13 ft., making a total of 47 ft. from cross-cut. The lode is well charged with mineral; it is not so solid as it was, being intermixed with soft layer of country. I was compelled to stop No. 3 winze, as the water is too heavy for hand labour; it is all surface water, and will take up in the fine weather. New shaft has been sunk 8 ft., making a total of 16 ft. from surface, and timbered up. We have a lot of surface water to contend with, owing to the heavy rains we have had for the last two or three weeks. I shall push this part of the work on with all possible speed, so as to be able to have all our stone through this shaft, as it will be in the centre of our works, and will do away with so much tramping.—Grove Section, No. 2: The south drive has been extended 2 ft., making a total of 15 ft. from cross-cut. It does not improve in appearance; it is still broken up, and there has been no work done in the way of driving for this week, owing to No. 2 adit being filled up for about 200 ft. in length, and about 3 ft. thick, with mud, owing to land-slips, which completely blocked the mouth of adit. It happened on Sunday, Sept. 7. I was down trying to prevent as far as possible the damage, but was powerless, as the water and rocks going down the gully was something terrific. Some of the rocks are more than we can move without blasting them. It filled the adit at mouth of about 8 ft. deep with rock and earth, and washed away about 700 tons of quartz, which was stacked there ready for hauling to battery. I might mention that under our plan we have a large culvert about 4 ft. wide, and 3 ft. high, to carry away the water. As a rule, there is very little water that comes down this gully. When we had the heavy burst of rain on June 24 there was not the slightest damage done in this part of the property, but this time its whole fury seems to have been expended on this particular spot. North drive has been extended 13 ft., making a total of 17 ft. from cross-cut; the last few feet it is broken up, and the wall is very irregular.—Stopes: I have stopped all work in this part of the mine, as we have not room to stack any more stone, so I have got all the men repairing the damage, so as to get the mill to work as quick as possible.

Surface: After having completed new engine, and having everything fixed, so as to keep crushing, as I thought without any more delays this unfortunate accident has thrown us back for at least another fortnight. About 100 ft. of our main battery-road has been washed away; this is the work that will delay us the longest, but you may depend on me getting it repaired as quick as possible.—Race: This was the only part of the work that I was afraid of; I was down while the heavy rain lasted, so as to see that all the sluices were clear. I was standing looking at the water coming down over the side of the hill, when I noticed a slight movement, and had just time to get under a large rock when some hundreds of tons came down; fortunately we had covered over that part of race some two or three weeks before, and that prevented it from stopping the water; if it had not been for this the race would have been washed away. Everything was safe on the race, when I left it at 5 o'clock after the heavy rain had stopped; but during the night a heavy log was carried down against the

door at the head of the race, and broke it in, and when I came down on Monday morning I found the side of the race had given way, but it happened to be in a place that is easy to repair. I have had a new iron door put in, and will have the race finished by Monday.—Mill: I started battery on the 4th, and everything was working well up to the time we stopped on Saturday

PROVINCIAL STOCK AND SHARE MARKETS.

CORNISH MINE SHARE MARKET.—Mr. S. J. DAVY, mine share-dealer, Redruth (Oct. 9), writes:—This week we have had a very slow market, with a predominance of sellers. Dolcoath has fallen 4, East Pool 1½, Tincroft 1, and West Kitty ½. To-day there is but very little doing. Smelters reduced tin standards 2s. on Wednesday. Subjoined are the closing quotations:—Carn Brea, 1½ to 1¾; Cook's Kitchen, 10 to 12; Dolcoath, 67½ to 68½; East Pool, 38 to 39; Killifreth, 3s. to 5s.; New Cook's Kitchen, 1 to 1½; New Kitty, 1½ to 1¾; Peden-an-drea, 9s. to 12s.; Polberro, 1½ to 2½; South Condurrow, 5½ to 9; South Crofty, 2 to 3½; South Wheal Frances, 8½ to 9½; Tincroft, 6½ to 8½; Trevaunance, 1½ to 2½; Oscars, 17s. 6d. to 20s.; Pestareena, 1s. to 2s.; Schwab's Gully Diamond, 6 to 6½; Victoria, 6s. to 7s.; and West Callao, 2s. 6d. to 3s. 6d.

In shares of oil and miscellaneous companies the principal feature has been in Nobel's, which advanced to 16, but have since declined to 14½, on a circular issued by the company that the Government wish to impose restrictions for guarding their stores by day and night at enormous expense to the company. Lanark Oil shares touched 7s., but are now about 2s. Elmore and Company (Debentures) offered at 4. From information received this company seems to be making excellent progress and increasing plant. A report will be issued in five weeks. Droylwich Halt are 1s., to 2s.; Halkyn Drainage, 7½; Home Mines Trust, 23s. to 25s.; and Lawes' Chemicals, 5 to 5½.

EDINBURGH.—Messrs. THOS. MILLER AND SONS, stock and share brokers, Princes-street (Oct. 8), write:—The market has become very quiet in all departments. Railway ordinary stocks have been heavy, the leading Scotch lines and Metropolitan District in particular have fallen. Some debenture stocks have been offered at more favourable terms to the purchasers. British Linen Bank is a little higher. North British and Mercantile Insurance shares are rather lower. Standard Life have been offered at 55. Cornish Cattle shares show little change. Edinburgh Tramways have fallen 1s. North Busy, 3s. to 4s.; Peden-an-drea, 9s. to 12s.; Polberro, 1½ to 2½; South Condurrow, 8 to 8½; South Kitty, 1½ to 2½; South Crofty, 2 to 3½; South Frances, 8 to 9½; Tincroft, 6½ to 8½; West Basset, 1 to 2½; West Kitty, 9½ to 10; West Wheal Bassett, 1 to 2½; West Wheal Seton, 2 to 3½; Wheal Agar, 16 to 18½; Wheal Polbreen, 3½ to 5½; West Wheal Frances, 9½ to 10; West Seton, 3 to 4½; Wheal Agar, 16 to 18½; Wheal Bassett, 2½ to 3½; Wheal Grenville, 5½ to 6; Wheal Kitty, ½ to 2½; Wheal Uny, 3½ to 4½.

MESSRS. AMBROSE AND WICKETT, stock and share brokers, Redruth (Oct. 9), write:—The share market this week has been very flat in sympathy with tin, and prices generally show a material fall. Quotations are mostly nominal, there being but little disposition to do business at present. Closing prices herewith:—Carn Brea, 4s. to 5s.; Carn Brea, 1½ to 1¾; Cook's Kitchen, 10 to 12; Dolcoath, 67½ to 68½; East Blue Hills, ½ to 5s.; East Pool, 38 to 39; Killifreth, 4s. to 5s.; New Cook's Kitchen, 1 to 1½; New Kitty, 1½ to 1¾; Peden-an-drea, 9s. to 12s.; Polberro, 1½ to 2½; South Condurrow, 5½ to 9; South Crofty, 2 to 3½; South Wheal Frances, 8½ to 9½; Tincroft, 6½ to 8½; Trevaunance, 1½ to 2½; Oscars, 17s. 6d. to 20s.; Pestareena, 1s. to 2s.; Schwab's Gully Diamond, 6 to 6½; Victoria, 6s. to 7s.; and West Callao, 2s. 6d. to 3s. 6d.

MR. M. W. BAWDENS, Liskeard (Oct. 9), writes:—The mining market presents no improvement, and prices have further retrograded; many of the low-priced calling mines are scarcely saleable, and without some improvement on the standard for tin and copper will have to succumb under existing depression. Subjoined are the closing quotations:—Bedford United, 1 to 1½; Blue Hills, ½ to 5s.; Camborne Vean, ½ to 5s.; Carn Brea, 1½ to 1¾; Cook's Kitchen, 10½ to 11; Dolcoath, 69 to 70; Devon Consols, 2 to 2½; East Caradon, ½ to 5s.; East Pool, 38 to 39½; Glasgow Cardon, ½ to 5s.; Gunnislake (Clitters), ½ to 5s.; Killifreth, 2 to 3½; Mark Valley, ½ to 5s.; Old Gunnislake, 1s. to 1s. 6d.; Phoenix United, 2 to 2½; Prince of Wales, ½ to 5s.; South Caradon, ½ to 5s.; South Condurrow, 8 to 8½; South Crofty, 3½ to 4½; South Devon United, ½ to 5s.; South Frances, 8½ to 9½; St. Just United, 4½ to 5½; Tincroft, 5½ to 6½; West Basset, 2 to 2½; West Caradon, 1s. to 1s. 6d.; West Frances, 5½ to 5½; West Kitty, 9½ to 10; West Crebior, 1s. to 1s. 6d.; West Phoenix, ½ to 5s.; Wheal Agar, 16 to 18½; Wheal Crebior, 1 to 1½; Wheal Granville, 5½ to 6; Wheal Kitty, ½ to 5s.; Wheal Uny, 3½ to 4½.

MR. JOHN CARTER, mine shareholder, Camborne (Oct. 9), writes:—The share market has again been dull this week. The tin standards have been reduced 2. Dolcoath have declined to 6s., and East Pool to 38½. West Frances, Wheal Agar, Tincroft, and West Basset have also declined. The following are the closing quotations:—Carn Brea, 1½ to 1¾; Cook's Kitchen, 10 to 11; Dolcoath, 67½ to 68½; East Pool, 37½ to 38½; Killifreth, 4s. 6d. to 5s. 6d.; New Cook's Kitchen, 1 to 1½; New Kitty, 1½ to 1¾; South Condurrow, 8½ to 9½; South Crofty, 2 to 3½; South Frances, 8½ to 9½; Tincroft, 6½ to 8½; West Basset, 2 to 3½; West Frances, 5½ to 5½; West Kitty, 9½ to 10; West Peover, ½ to 5s.; West Seton, 3 to 3½; Wheal Agar, 16 to 18½; Wheal Crebior, 1 to 1½; Wheal Granville, 5½ to 6; Wheal Kitty, ½ to 5s.; Wheal Uny, 3½ to 4½.

MANCHESTER.—Messrs. JOSEPH B. and W. P. BAINES, share-brokers, Queen's Chambers, Market-street (Oct. 9), write:—The anticipations of those who looked for an early advance in the price of money have proved correct, and as the probability appeared the more certain the effect has made itself felt in the values of securities in most departments. Railways generally are lower, but the depreciation is nowhere very severe, and here and there instances are found where firmness has best exhibited, but this may no doubt be attributed to influences personal to the concerns so affected. Colonial Government Loans and Corporation Stocks, &c., are much quieted, but figures have not undergone much revision resulting in alterations. In the latter series those quoted here mark no changes in price and very few transactions. In the former Canada Inscr. are ½ higher, but New South Wales Four per Cent. Inscr. and South Australian Four per Cent. Inscr. each quote ½ lower. In foreign funds the record is one-sided, and that for the worse, there being no case in which better prices are to be noticed, whilst the small changes are numerous; but still the depreciation is nowhere of great moment except in the solitary case of Brazilian Five per Cent., which quote ½ to 1½ down. In the classes of Brazilian Five per Cent., which was common a little while ago, but the market for these shares, as a whole, is far from active. Prices, however, are, as a whole, fairly steady.

BANKS.—Business is of a desultory character, excepting for Manchester and Liverpool Districts, in which several dealings are marked at steady prices. Union Bank of Manchester have done a few times at about recent prices obtained. No adverse changes in price.—Higher: Parry's, and Liverpool Commercial ½.—INSURANCE.—Markets quite neglected, a solitary transaction each in Equitable Fire and Manchester Fire being all the business reported. Quotations, too, have not changed much, what changes there are being irregular, and evincing no general tendency.—Higher: Royal (Liverpool), ½ to 5s.; and British and Foreign Marine, ½.—Lower: Liverpool and London and Globe, ½; and Thames and Mersey Marine, ½ to 5s.

COAL, IRON, &c., AND MIXED STOCKS.—Changes in prices a little more approaching a balance than has been the case the last week or two. In one or two instances where rapid upward movement has taken place recently, some little falling off from best points touched to be noticed, but the relapse is but slight even where it has occurred. Compared with recent times, a very fair business has been in progress during the week.—Higher: Ashbury's Ordinary, 4½ to 5½; ditto New, 1; Tredgar, A, 1; Telegraph Construction and Maintenance, 1; Park Gate Iron, ½; Palmer's Shipbuilding B, ½; and a few others ½ to 5s.; Lower: Bolckow's (12d. paid) ½; ditto (fully paid), ½; Cammells, ½; and United States Rolling Stock, ½.

COTTON SPINNING, &c.—Though the reason is hard to find the tone of this market is rather better, and prices are obtainable which were quite impracticable a week ago.—TELEGRAPHES.—Atlantic descriptions, Anglos particularly, better, on reported mishap to new cable. Others all better also where altered.

TELEPHONES.—Fair business in Lancashire and Cheshire, which are practically unaltered. United ½ higher.—RAILWAYS.—The hardening tendency of money has sent rails lower, foremost in the decline being southern lines, Metropolitan Districts, and Great Westerns. The downward movement has received fresh impetus from the advance of the Bank rate to-day to 3 per cent. Exceptions to the general decline are found in London and North-Westerns and Lancashire and Yorkshire, both of which are firm. Canadians mark an important improvement, the Pool arrangements being expected to affect them favourably. Trunks of most issues are distinctly higher, but best points are not quite maintained. The traffic to-day, though showing about 10,000,000 decrease, has not served "bears," and the close is good. Americans, as against last week, irregular, New York Centrals, Louisvilles, Erie Seconds, and Lake Shores being about the most changeable. Mexican rails continue to report decreases in their takings, this week's being 8000, and the price fall off, but has recovered, and a slight gain is made on balance for the week.

NEWCASTLE-ON-TYNE.—Mr. S. N. CHALLONER, stock and share broker, Grey-street (Oct. 9), writes:—Iron companies shares are generally firmer. Barrow Steel Ordinary, at 5s. to 5½, and Six per Cent. Preference at 9 to 9½, are both ½ higher. Consett Iron, at 19 to 19½, are 1 higher. Sir W. G. Armstrong-Mitchells, at 125 to 127, are 2 higher. Palmer A, at 24 to 24½, are ½ higher; and B are ½ higher, at 15 to 15½; and West Cumberland Iron, ½ to 4½ to 5. Darlington Iron Ordinary remain 23s. to 24s.; ditto Preference, 3 to 3½. Consett Spanish Ore, 7s. to 7s. Earle's Shipbuilding, 10½ to 11. Ebbw Vale, 5 to 5½; John Brown, 62 to 63; John Abbotts, 44 to 44½; Teeside Iron Ordinary, 5s. to 10s.; ditto Preference, 3½; Tyne Forges are ½ higher at 6. Bolckow Vaughan fully paid, at 17½ to 17½, are ½ lower; and ditto 12 paid, at 1½ to 2, are ½ lower; but the Five per Cent. Preference, at 18½ to 19½, are ½ higher. C. Cammell are ½ lower, at 7½ to 8. Mason Barry shares are 9s. to 10s.; Panucillos, 3½ to 3½; Rio Tinto, 15½ to 15½.—Gas and Water shares continue firm. Newcastle Water Ordinary, at 20s. is 3 higher; and ditto Five per Cent. Preference, at 12½ to 13, is 1 higher. Hartlepool Gas and Water A remain 9½ to 10; B, 8½ to 8½; C, 7½ to 7½; and D fully paid, 15½ to 15½.—Miscellaneous: High Gossford Parks are lower at 15 buyers, and business done at the price. Langdales 3½ higher, at 4 to 4½; Lawes at 5½ to 5½ are unchanged. Newcastle Chemicals, 25s. to 30s., firm; Sadler B remain 14½ to 15; and C 7½, paid are 6½ to 6½; Tyne Steam 13 to 13½; North-Eastern Banks remain 6½ to 6½.

SCOTCH MINING AND INDUSTRIAL COMPANIES

SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, stockbroker and ironbroker (Oct. 9), writes:—During the past week the market has been quiet, and prices do not show much alteration. The Board of Trade Returns for last month, however, are less unfavourable, and some recovery in trade must be approaching.

In shares of coal, iron, and steel companies there has not been much doing. Clyde coal shares have advanced to 6s. on the dividend announcement; Marbelias remain at 50s.; and West Cumberlands are 4½ to 5½.

In shares of foreign copper and lead concerns prices are steady. Rio Tinto declined to 15, but are now about 15½. The dividend of 8 per cent. announced on Mason and Barry shares compares with 10 per cent. at this time last year, but is considered favourable. Tharals have been sold at 5s., 6s. 6d., to 6½ ls. The low price of copper is much against these companies at present, and the agreement between them for regulating the output expires in December. Arizonas are 20s. to 22s.; Canada Copper, 2s. 6d. to 2s. 6d.; Corporation of South Australia, 1s. to 2s.; Lake Superior, 2s. 6d. to 3s. 6d.; Tarns Silver Lead, Preference, 1s. to 2s.

In shares of home-mined business is still dull. Tin shares are lower on the fall in the price of that metal. Collacome Consols are at 2s. 6d.; Carn Camborne, 2s. 2d. to 2s. 6d.; East Blue Hills, 2s. 6d. to 2s. 6d.; Ecton, 30s. to 30s.; Gunnislake (Clitters), 2s. 2d. to 2s. 6d.; Landships, 12s. to 15s.; Wheal Frances, 5s.; West Phoenix, 4s. 6d. to 5s. 6d.; Wheal Jane, 9s.; and Wheal Lundy, 6d.

In shares of gold and silver mines there has been a little more business doing. Montanas have been sold from 20s. to 22s. 6d. Kohinoor are firm at 3s. to 3s. 6d., but are expected to advance, when the announcement is made that the fresh capital is fully subscribed. Balkis shares have advanced to 4s., 5s. Consolidated Mine (Debentures) wanted. Akancos are at 5s. to 7s.; Argentia Falls Silver, 2s.; Cankin Ramon, 1s. to 2s.; Callao Bis, 8s. to 10s.; California, 1s. to 1s. 6d.; Chonatela, 1s. to 1s. 6d.; Chile, 1s. to 2s.; Carigao, 1s. to 2s.; Denver,

1s. 6d. to 2s. 6d.; El Callao, 7s. 1d. to 7s. 5d.; Gold Coast (Ordinary), 2s. 3d. ditto (Preference), 2s.; Hungarian Gold and Silver Reduction Works, 50s.; Kapangas, 2s. 6d. to 3s. 6d.; Lisbon-Berlyn, 4s. to 6s.; Myaore, 12s. 6d. to 13s. 6d.; New Callao, 2s. 6d. to 3s. 6d.; New Potosi, 6s. 3d. to 7s. 6d.; Organos, 9s. to 11s.; Oscars, 17s. 6d. to 20s.; Pestareena, 1s. to 2s.; Schwab's Gully Diamond, 6 to 6½; Victoria, 6s. to 7s.; and West Callao, 2s. 6d. to 3s. 6d.

In shares of oil and miscellaneous companies the principal feature has been in Nobel's, which advanced to 16, but have since declined to 14½, on a circular issued by the company that the Government wish to impose restrictions for guarding their stores by day and night at enormous expense to the company. Lanark Oil shares touched 7s., but are now about 2s. Elmore and Company (Debentures) offered at 4. From information received this company seems to be making excellent progress and increasing plant. A report will be issued in five weeks. Droylwich Halt are 1s., to 2s.; Halkyn Drainage, 7½; Home Mines Trust, 23s. to 25s.; and Lawes' Chemicals, 5 to 5½.

EDINBURGH.—Messrs. THOS. MILLER AND SONS, stock and share brokers, Princes-street (Oct. 8), write:—The market has become very quiet in all departments. Railway ordinary stocks have been heavy, the leading Scotch lines and Metropolitan District in particular have fallen. Some debenture stocks have been offered at more favourable terms to the purchasers. British Linen Bank is a little higher. North British and Mercantile Insurance shares are rather lower. Standard Life have been offered at 55. Cornish Cattle shares show little change. Edinburgh Tramways have fallen 1s. North Busy, 3s. to 4s.; Peden-an-drea, 9s. to 12s.; Polberro, 1½ to 2½; South Condurrow, 8 to 8½; South Kitty, 1½ to 2½; South Crofty, 2 to 3½; South Frances, 8 to 9½; Tincroft, 6½ to 8½; Trevaunance, 1½ to 2½; Oscars, 17s. 6d. to 20s.; Pestareena, 1s. to 2s.; Schwab's Gully Diamond, 6 to 6½; Victoria, 6s. to 7s.; and West Callao, 2s. 6d. to 3s. 6d.

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The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, OCT. 10, 1884.

IRON.	£ s. d.	IRON.	£ s. d.
ig. G.M., f.o.b., Clyde...	2 1 7 1/2	English, ingot, f.o.b.	79 3 0 - 80 0 0
Scotch, all No. 1 ...	2 2 3 - 2 2 4	" bars	80 0 0 - 81 0 0
Bars Welsh, f.o.b., Wales	5 0 0 -	" refined	81 0 0 - 82 0 0
" in London	5 10 0 -	Australian	75 0 0 -
" Stafford, "	5 5 0 -	Banca	70 0 0 -
" in Tyne or Tees, "	5 0 0 -	Strata	74 10 0 -
" Swedish, London, "	9 0 0 - 9 10 0	COPPER.	
Bills, Welsh, at works...	5 0 0 -	Tough cake and ingot.	57 0 0 - 59 0 0
Sheets, Staff., in London	7 5 0 - 7 10 0	Best selected	59 0 0 - 60 0 0
Plates, ship, in London	7 10 0 - 8 0 0	Sheets and sheathing.	63 0 0 - 67 0 0
Hoops, Staff.,	6 7 0 -	Flat Bottoms	65 0 0 - 70 0 0
Nail rods, Staff., in Lou.	5 7 0 -	Wallaroo	nom.
STEEL.		Burra, or P.C.O.	60 0 0 -
English spring	12 0 0 - 18 0 0	Other brands	58 10 0 - 60 0 0
cast	30 0 45 - 0 0	Chilli bars, g.o.b.	53 10 0 -
Swedish, keg	13 0 0 - 14 0 0	QUICKSILVER.	
fag, ham	13 10 0 - 14 10 0	Flasks, 75 lbs., war.	5 12 0 -
Balls at works.	4 12 0 - 5 0 0	PHOSPHOR BRONZE.	
" Light, at works.	5 12 0 - 6 12 0	Alloys I. and II.	£107 0 0
LEAD.		" V.	115 0 0
English pig, common.	11 0 0 - 11 2 5	" VI. and VII.	127 0 0
" L.B.	11 5 0 - 11 5 0	" XI.	105 0 0
" W.B.	11 5 0 - 11 7 5	Duro A., Duro B.	100 0 0
sheet and bar.	11 12 0 - 11 15 0	WIRE.	63 1/2 d. -
pipe.	12 5 0 -	Tubes	52 1/2 d. -
red.	13 5 0 - 14 0 0	Sheets	63 1/2 d.
white.	14 10 0 - 18 10 0	Yel. met. sheath. & sheets	5 1/2 d. -
patent shot.	14 0 0 -	TIN-PLATE.	per box
8. anish.	12 15 0 - 17 17 6	Charcoal, 1st quality.	1 10 0 - 1 2 0
NICKEL.		2nd quality.	0 18 0 - 0 1 0
Metal per cwt.	- - -	Coke, 1st quality.	0 16 0 - 0 16 0
Ore 10 percent. per ton.	- - -	2nd quality.	0 15 0 - 0 15 0
SPELTER.		Black.	per ton 15 10 0 -
Silesian ordinary brands.	14 10 0 -	Canada, Staff., or Gla.	12 0 0 -
special brands.	14 15 0 -	Sheets.	12 0 0 -
English Swanses.	15 5 0 -	at Liverpool.	-
Sheets zinc.	17 10 0 - 17 15 0		

* At the works, 1s. to 1s. 6d. per box less for ordinary; 1s. per ton less for Canada; IX 1s. per box more than 10 quoted above, and add 6s. for each X. Tin plates 2s. per box below tin-plates of similar brands.

REMARKS.—Our markets, for the most part, continue flat, except in those cases where transactions are carried through with more or less activity for the fall. Some markets are suffering from a protracted gloom, a quietude which nothing can disturb, and an inactivity which is bearing a most important and unfavourable influence over the whole trade. Anything, perhaps, might be better for the trade at large than this settled lethargy, and the indisposition that exists to do business at any price. The markets are being neglected prices crumble away, and it is remarkable how little disposition exists to buy at current rates, and an equally small amount of desire is shown by sellers to effect sales. Sellers argue that prices have been too much reduced to make it worth their while to press for business, providing they can obtain enough orders to keep their mills, plant, and machinery from standing entirely idle and getting rusty and out of order; they seem content, and even congratulate themselves that bad as their position is, it might possibly be worse, and they are, perhaps, even better off than their neighbours and competitors, many of whom have had to close their works altogether. They take things as they come, and, although heavy losses have often to be made by producers, manufacturers, holders, and others connected with the trade, yet they one and all live in hope of better times, when profits may again be realised, and, further, that the existing stagnation may not be so prolonged as a revival does take place. These remarks refer to the trade in general; but in the case of tin, which has until to-day formed an exception to the other markets, there has been considerable fluctuation of prices, the "bears" having caused further heavy reductions in prices. This market has been active, but active for the fall, and has been characterised by a semi-panic feeling. Doubtless the "bears" have been assisted in their movement by the little stiff tendency in the money market, as well as in the advance of the Bank rate yesterday, but more particularly by the unsettled state of the produce market.

Tin is high in value compared with the other metals, and it is also, as a rule, more speculative; and, therefore, it is easy to account for the fluctuations and changes of the week. But looking at the trade, as a whole, it is rather a striking matter that notwithstanding the numerous unfavourable influences at work, the markets for the most part do not lose their own steadiness being the general characteristic. Thus we find, in spite of the combination which is known to be made in the Mining-land markets, the possibility if not probability of further failures, the withdrawal of gold from the country, the stiffer tendency of money, the adverse political situation, the sparing manner in which buyers make purchases, the keenness of the competition, the limited profits, and the heavy losses which have heretofore been made, and which may possibly be further increased before very long, are matters so unfavourable that the trade has to be congratulated that upon merely one or two more alone have they had any very serious effect. In others they have prevented a rise which might well have been anticipated, and which is even still quite possible, and that before very long; but these adverse features have not caused them to be further reduced in value. They were already too low, and sellers have considered it advisable to be firm in their quotations. This is an evidence that present prices are safe; they are in some instances below the cost of production; they are held for the most part by strong holders. And certainly, whilst other branches of commerce are in a more or less disorganised state, yet metals are in a sound position, and if they continue favourable in statistics they may take the lead in the first steps towards trade revivals. Owing to their non-perishable nature, they now offer a most favourable opportunity to investors, and those who are able to stand out against the fluctuations arising from special causes will probably find that very handsome profits will be realised in the future.

COPPER.—The course of this market has been disappointing, and reduced prices have again been accepted, and to-day the fall has been rather serious. The state of trade being disorganized just now, holders who wish to realise have to accept reduced rates; but there is very little selling for forward prompts, evidencing that operators consider current prices too low to press sales for deliveries ahead. To make sales for sharp prompts is, perhaps, less risky, because the state of trade is so unsettled that it is quite possible further concessions may be made; but it is most improbable that any material fall will be permanently effected in the face of the greatly reduced stocks, the immense deliveries, and other favourable features connected with the market. Undoubtedly the advance in the Bank rate yesterday had something to do with the fall, for before then the price had only shown symptoms of ease, occasioned, as we have already shown, not from any adverse feature in this particular market, but by the stagnation in general trade. The large deliveries prove that a good legitimate business has been transacted, and these extremely cheap prices are likely to maintain large deliveries. This will be very satisfactory to the trade at large, because it will pave the way and make the restoration even more thorough, when it once begins to take place—that is to say, if the deliveries continue to be in excess of the supplies, as they have been for several years past, stocks will be so materially reduced, that with any revival of trade, greatly enhanced prices would soon be realised.

There would be nothing to check or prevent suppliers from receiving a remunerative return for their output, and they would doubtless demand prices that would give extra profits, so as to compensate themselves for the losses now being incurred. But how soon it may be before they are able to realise such profit time alone can disclose. To-day the market has been much disturbed, the continued heavy fall in the producing a most unfavourable effect. The actual state of the market is entirely disregarded, no attention whatever being paid to the merits or the demerits of the market, and buyers being only conspicuous for their absence, and sellers very anxious to rid themselves of their stocks and offering to sell at ridiculously low prices. A panic appears to have suddenly seized the minds of operators and holders, and if prices continue to be pushed down as they have to-day, it is more than probable we are hastening on

to a crisis, and many will be pushed forward on the road to ruin. On the other hand, if holders can show a little firmness, and cling to their stocks through the present unsettled state of affairs there is every probability that they will in the end secure good profits.

IRON.—This market continues quiet, and, on the whole, fairly steady. As we have on previous occasions shown, prices are already too low to further recede to any material extent; and, on the other hand, there is not much prospect of any speedy recovery, because trade is still very bad. There is an absence of vitality, and no life is being put into the market, and therefore, it is that depression reigns undisturbed and without anything to break the prevailing monotony. As the season has now so far advanced the prospects of the trade are indeed gloomy. The autumn is the time when, as a rule, enough orders are booked not only to keep the mills and works in operation for the time being, but sufficient to carry them through a greater part of the winter months. But this year the outlook is dark in the extreme. There are not even enough orders in the market to keep the mills in full operation for the time being—nay, there are many of the works altogether closed, and others only partially employed; and, therefore, the probable distress amongst the working classes in the coming winter is likely to prove very great. Further reduced wages are even probable, strikes and lock-outs more than possible, and the whole trade suffering from an intensified quietude.

Everything fails to stimulate buying, and the hesitation evinced by buyers before paying even the present low prices is an evidence, first, in their inability to purchase beyond the most limited quantities; and, secondly, of the lack of confidence they have in the future stability of prices, and although some of them recognise that prices are low, and not likely to be further materially reduced, yet at the same time they see, and perhaps with good cause, no sign of any immediate restoration in quotations, and therefore prefer to abide their time, and not purchase before their absolute requirements necessitate them. The advice from Scotland shows a steady demand for makers' iron, and no alteration in prices. The Glasgow warrant market opened last Monday with a weaker tone, and business was done from 41s. 9d. down to 41s. 7 1/2 d., and on Tuesday very few transactions were recorded between 41s. 7d. and 41s. 8d., closing nominally between these two figures, while on Wednesday the market was firm, and there was very little change in prices, the official quotation being 41s. 7d. to 41s. 7 1/2 d. Yesterday again the market was very firm, and a large business was transacted, the quotation being 41s. 7 1/2 d. to 41s. 8 1/2 d., and the closing figure this afternoon is 41s. 7 1/2 d. The shipments last week were 9655 tons, against 12,023 tons for the same week of last year, being a decrease of 2368 tons, and which makes the total shipments for the whole of this year 430,831 tons, against 505,637 tons for the same time of last year, and 497,644 tons for the similar period of 1882. Here we may mention that the shipments this year have been lighter than any for the similar period of any year since 1879, when there were about 5000 tons less than they are now.

At the same time, as the shipments in the last part of that year were very large, it is more than probable that unless the shipments are now soon augmented, the comparisons, even with that year, will very shortly be unsatisfactory. The number of furnaces in blast has been reduced to 92, and the public stock has undergone very little change and is now estimated at 582,662 tons. The imports of Middlesbrough pig-iron into Grangemouth last week compare favourably with those for the corresponding period of last year, amounting to 4260 tons, against 2920 tons, or an increase of 1340 tons; and which leaves a deficit for the whole of this year, compared with last, of 298 tons. In the Middlesbrough market there is very little change to report, the demand being very quiet, and No. 3 is quoted at 38s. 6d. from second hand, and 37s. by makers.

At the Quarterly Meeting held at Wolverhampton on Wednesday prices were tolerably strong; but very little business is reported, and it seems doubtful whether makers will be enabled to sustain their markets for pigs, as the competition with the North is very keen. The present quotation for marked bars is 71. 10s. to 82. 2s. 6d. and for pigs, 80s. for cold blast, and 80s. for hot blast. The price for sheets is 71. 7s. 6d. and for 12s. 6d. per ton. At the Quarterly Meeting Birmingham yesterday the tone was rather better than what was generally anticipated, and a moderate business was transacted, whilst quotations were well sustained, the recent full advance for common bars being realised, and list bars were again quoted at 71. 10s. A steady business was transacted in galvanised sheets at 14s. 10s. per ton for 14 gauge, whilst common sheets are in fair consumption demand at unaltered quotations.

TIN.—This market has been very unsettled, and prices have been widely pushed down in a most unaccountable manner. During the last fortnight or three weeks prices have receded to the extent of about 8d. per ton, and that without any particular adverse feature connected with this particular market. A semi-panic has characterised operators, and holders have freely disposed of their stocks at almost any obtainable price, hence the enormous reduction in quotations. The lower prices have failed to induce buyers to come forward and make contracts; in fact, where there were plenty of buyers at 6d. or 7d. per ton above present prices, there are now at these low rates only conspicuous by their absence, and this arises because in times of panic there is no knowing how low prices may be reduced, and buyers stand aloof, hoping to get in at the lowest possible price. Orders thus delayed will, however, only tend to increase the future demand, and as it is usual for a sharp rebound to follow a sharp reaction, it is quite possible a speedy recovery may be effected.

STEEL.—This market has been very unsettled, and prices have been widely pushed down in a most unaccountable manner. During the last fortnight or three weeks prices have receded to the extent of about 8d. per ton, and that without any particular adverse feature connected with this particular market. A semi-panic has characterised operators, and holders have freely disposed of their stocks at almost any obtainable price, hence the enormous reduction in quotations. The lower prices have failed to induce buyers to come forward and make contracts; in fact, where there were plenty of buyers at 6d. or 7d. per ton above present prices, there are now at these low rates only conspicuous by their absence, and this arises because in times of panic there is no knowing how low prices may be reduced, and buyers stand aloof, hoping to get in at the lowest possible price. Orders thus delayed will, however, only tend to increase the future demand, and as it is usual for a sharp rebound to follow a sharp reaction, it is quite possible a speedy recovery may be effected.

TIN-PLATES.—A moderate business continues to be transacted, and at the Quarterly Meeting of the Iron Trade, held at Birmingham, yesterday, there was a fair enquiry for common cokes at 15s. per box, and for charcoals at 18s. per box.

QUICKSILVER.—The Board of Trade Returns for September are as follows:—

	1882.	1883.	1884.
Imports—September.	Bottles 600	550	500
	Nine months 43,768	53,442	56,428
Exports—September	2,744	5,243	3,734
	Nine months 28,408	35,509	39,477

The importers of Spanish hold with unabated firmness for 5s. 12s., but several sales from second-hand are reported at irregular prices.

THE MINING SHARE MARKET has been more than usually dull and depressed this week, particularly for tin mines; and those most prominent in the market and worked at heavy cost have been the most seriously affected by the further fall in tin. Many of these have been more freely offered, without finding buyers even at reduced rates. A few low-priced and speculative mines have been moderately dealt in, but quotations are mostly nominal.

TIN has again fallen in price, and the smelters have further reduced the standard for ore in Cornwall 2s. per ton, and it will be observed there is a considerable decline in the quotations of many of the prominent tin mines. Carn Breas are quoted 1 1/2 to 1 1/2; Cook's Kitchen, 11 to 12. Dolcoath have declined to 67. 69; East Pool to 33. 39; East Blue Hills, 4s. to 6s.; Killifreth, 3s. to 5s.; New Kitty, 1 1/2 to 1 1/2; South Condurrow, 7 1/2 to 8; South Frances, 6s. to 6s.; Tincroft, 6 to 6s. West Frances are weaker, at 4s. to 4 1/2 to 5s.; West Kitty, 9 1/2 to 10; Wheal Agar, 16 to 16 1/2; Wheal Basset, 24 to 25; Wheal Grenville, 5s. to 6s.; Wheal Kitty (St. Agnes), 10s. to 15s.; Wheal Uny, 5s. to 6s. At the Levant meeting the accounts showed a profit on four months' working of 3007, and a dividend of 2s. 6d. per share was declared. West Basset, 1 1/2 to 1 1/2; at the meeting the accounts showed a loss of 13637, and a debit balance of 2125. A 5s. call was made. The tin sold realised 45647, and copper 23517. At West Basset yesterday a loss of 13637 was reported, and a total debit balance of 2125. A 5s. call was made. The tin sold realised 45637, and copper 23517. The water had affected the returns, and a falling off of the North Franks part of the mine; the latter, however, has since improved.

The Anglo-French Marble Company, with a capital of 200,000, is shares of 1s. each, has been formed to purchase for 71,000, (of which 21,000 is payable in cash, and 50,000, in fully paid shares) the Amadière Freehold Quarries and Lands, and to work the same on an extended scale, from which large and profitable returns are confidently anticipated. The first issue consists of 100,000 1s. shares, of which 50,000 are now offered for subscription. The quarries and lands which cover about 617 acres are within easy distances of the Royal Favours stations of the Paris, Lyons, and Mediterranean Railway, and are connected therewith by good roads. This railway places them in direct communication with all parts of France, Germany, Italy, and Switzerland. Taking out two of the quarries at the basis of operations the contents of these amount to 1,709,224 cubic yards. One is opened 450 yards for working, and produces marble of a cherry red, the other opened 550 yards for working, producing marble of light yellow. Seventeen other quarries can be opened as required, trifling cost, producing marbles of

provement in the lode at Wheal Maria part of the mine, sinking below the adit, in the eastern shaft, where the lode is opening out wide—now 5 ft. wide—and of a strong masterly character, as the manager states, and yielding good copper and mungo ores, and bordering on an important discovery at this part of the mine. The 33, east of Weston's shaft, has improved, producing 2 tons of mineral per fathom.

Devon Great United, $\frac{1}{2}$ to $\frac{1}{2}$; the 120 west continues to produce 2 tons of mineral per fathom, and the 6 fm. level west is producing some rich quality ore.

Drakewalls, $\frac{1}{2}$ to $\frac{1}{2}$; the agent's report states that good progress is being made in clearing the engine-shaft and putting in the necessary pitwork below the 92. The 102 will be reached next week, when sinking will be resumed below this level. The new north lode, where operations have recently been commenced, is fully 3 $\frac{1}{2}$ ft. wide, producing tinstuff for the stamps.

Ecton, 1 $\frac{1}{2}$ to 2; the discovery at Clayton has much improved during the week, and continues to yield splendid copper. At Salt's level the improvement continues: the pipe shows good yellow and grey copper ore, with every indication of further improvement.

Home Mines Trust, 1 $\frac{1}{2}$ to 1 $\frac{1}{2}$; a continuance of active business and enquiries for further parcels has characterised the market throughout the week. The market leaves off with a very firm tendency, and buyers still preponderate, both for cash or the account, with the continuing demand for Trust companies' shares. The feeling is steadily gaining ground that a 10 per cent. investment of such standing must soon see a further advance in value. This, on the issue of an anticipated good report, keeps prices up and shares scarce.

Kit Hill Great Consols, $\frac{1}{2}$ to $\frac{1}{2}$; the tunnel level has been driven during the past month 54 ft. and is now favourable for exploration in driving in the granite and congenial for mineral; the distance sunk in the north engine-shaft during the past month is 13 ft.

South Devon United, $\frac{1}{2}$ to $\frac{1}{2}$; the sinking of the shaft will be resumed next week in a good lode. The 120 west has improved this week, and is valued at 16 $\frac{1}{2}$ per fathom.

Ruby and Dunderberg, $\frac{1}{2}$ to $\frac{1}{2}$; the usual weekly report from the mines is again almost entirely centred in the Lord Byron, where the prospects appear favourable; there are now three places where ore is being extracted in small quantities, and at any time a large body might be encountered. In No. 1 cave some very rich bunches of ore have been found, assaying over \$300 a ton.

In LEAD MINE SHARES there has been very little doing, and prices, except in one or two cases, are entirely nominal; but to-day there is a very satisfactory improvement in the price of the metal, so that holders of lead mine shares are much more hopeful. With reference to the improvement a correspondent writes:—“The rift in the clouds to which I have before referred is widening, and we may hope that brighter times for lead mining are now approaching. The sales of lead ore made during the current week by several companies show an advance of from 2s. 6d. to 5s. per ton, and parcels of pig-lead have changed hands at about 15s. per ton advance on the price of a few weeks ago.” The question of the reduction of royalties payable by dividend-paying lead mines, a correspondent whose communication appears in another column, has made an interesting calculation, which might be adopted in directors' reports generally. In one case the royalty complained of amounts to 22s. per ton of metal, but he shows that there are other items, which estimated on the same basis, appear to call for quite as careful investigation. On the year's operations the engineering costs 13s. 11d. per ton of metal, the directors 7s. 1d. per ton, the secretary 2s. 4d. per ton, and the commission on sales of lead is 1d. per ton—25s. 2d. per ton of metal, and this, added to the 22s. royalty, of course seriously diminishes the amount that would otherwise be available for dividends.

Leadhills, 1 $\frac{1}{2}$ to 1 $\frac{1}{2}$; and are reported to have been in good demand since the meeting, a large number of executors' shares, it is stated, having been disposed of. The dividend will be paid on Oct. 16.

Roman Gravels, 3 $\frac{1}{2}$ to 3 $\frac{1}{2}$; the mines continue to look as well as reported at the meeting last week. The fortnightly sale of 100 tons of lead ore took place on Thursday, realising better prices, the total amount of sale being 710 $\frac{1}{2}$, and still much better prices are expected at the next sale. The dividend will be paid on Oct. 16.

Mason and Barry (San Domingos Mine, Portugal) have declared an interim dividend, for the half-year ended June 30, of 8s. per share, free of income tax, payable on and after Oct. 20, in London and in Paris.

The Patent Shaft and Axletree Company have decided to add to the already varied character of their work that of the manufacture of cast-iron pipes. This is a speciality requiring special appliances, which the firm have now resolved to provide, and as they will have the advantage of adopting the most recent improvements, and especially as they already have a very large foundry suitable for the purpose, there is no doubt they will be able to compete successfully both as to price or quality with the older houses in this branch who now monopolise this large trade, and will bring into the town of Wednesbury a new source of labour and profit both for the masters and men. Already they have taken a large contract for pipes—about 700 tons—for the Wednesbury sewerage scheme, and others are expected to follow.

It is notified that the coupons due Oct. 15 (No. 11) on the bonds of the Consolidated Debt of the Daira Saneh will in conformity with the law of liquidation be paid on and after that date at the rate of 8s. per 20 $\frac{1}{2}$ bond in London.

Messrs. C. de Murrieta and Co. notify that paid-up scrip of the Northern Colonies Railway of Santa Fé Five per Cent. Mortgage Bonds may now be left with them to be exchanged for bonds.

Messrs. I. Thomson, T. Bonar, and Co. notify that the coupons due Oct. 13 of the Russian Five-and-a-Half per Cent. Land Mortgage Bonds of the Central Bank of Land Mortgage Bonds (third series) for 1,000,000 $\frac{1}{2}$, together with the bonds drawn at St. Petersburg on Aug. 13, will be paid on and after Oct. 13 in London.

It is announced that at the half-yearly meeting of the Bank of Scotland, held at Edinburgh, on Tuesday, a dividend at the rate of 14 per cent. per annum was declared.

THE CORAL INDUSTRY.—The best coral grounds, yielding the most and best coral are, says the Times, still those on the Algerian coast, fished for that purpose from the middle of the 16th century, the others being the coasts of Sicily, Corsica, Sardinia, Spain, the Balearic Isles, Provence. Over 500 Italian boats, manned by 4200 men, are employed in the coral fishery, 300 of these boats being from Torre del Greco, in the Bay of Naples. The quantity gathered by these 500 boats amounts in all to about 56,000 kilos. annually, valued at 4,200,000 lire; that by other boats, Spanish, French, &c., to 22,000 kilogrammes at 1,500,000 lire—total for the year 78,000 kilos., at 5,750,000 lire. The taxes paid to the Government for the liberty of fishing on the African coast are very high, 1166 lire per boat for the summer season, and half as much for the winter, so that in consideration of the toils and risks undergone the profits are but very moderate. The gross gains per boat may be set down at 8000 lire for the season, and the expenses at 6033 lire, leaving only 1967 lire net profit. In Italy are 60 coral workshops, of which 40 are in Torre del Greco alone, employing about 9200 hands, mostly women and children. The principal markets are Germany, England, Russia, Austria, Hungary, and Poland, a large part going to Madras and Calcutta.

TRANSVAAL GOLD MINING.—An important discovery is reported by Mr. J. A. Stone, the manager of the Spitzkop (Lydenburg) Gold Mining Company (Limited), to the effect that he has, whilst sinking a shaft on the hill above Silo Tafe and Stanley's claims, struck a reef which prospects fully equal to any that he has seen in the adjoining rich claims which first made the reputation of the property. The reef was found in the same formation. Mr. Stone reports that from the favourable indications he expected in sinking deeper to find a series of rotten reefs such as have been worked so profitably in these claims, and he states that if it exists in such a large body as he believes, it will be the richest body in fine gold that he has ever seen, and that with a good California “rig” he would make it pay handsomely. Speaking of the reefs already opened on the property he

says that he has never before seen such rich prospects of fine gold as were obtained by making tests by “panning”—a yellow streak of very fine gold from 1 in. to 2 in. long was left. Mr. Stone states that he would never have believed the ground would have prospected so “big” had he not seen it himself, and that he expects to be able to give a good report of this part of the company's property before long, and if it is as extensive as it appears to be he believes great results can be obtained from the working of that hill alone. The expectation of striking an important reef in the lower stratification appears to have been realised from the following cablegram from Mr. Stone—“Struck rich rotten reef near Silos”—which was received by the company in London on Sept. 12 (about 17 days after the date of the letter announcing the above discovery). The importance of the discovery lies in the fact that it demonstrates the continuity and extension of the lodes which have been among the most famous of South Africa, and promises to open up an auriferous area of which the company can avail itself whilst the diggers' claims which are now before the Government Commissioner as arbitrator are being considered.

THE BRITISH ASSOCIATION IN NOVA SCOTIA.—Our scientific visitors set out yesterday, says the Halifax Morning Herald of Sept. 25, for Montagu. They were accompanied by Dr. Honeyman, Mr. Gilpin, Major-General Laurie, Mr. Leckie, Mr. Charles Annand, a director of the Bluenose Mining Company, and others. The first call was made at the crushing-mill, a mill of eight stamps, capable of crushing some 8 tons of quartz per day. The gold of the last assay was 1 oz. 15 dwt. per ton. By accident, or design, at the moment of the arrival of the company a piece of gold worth \$1000 was being taken from the retort. Mr. Annand presented each of the scientists with handsome specimens of gold-bearing quartz, some of them very valuable. This Bluenose property is regarded as a promising lead. It is the same that was opened some years ago, but abandoned because with the appliances then in use the pit could not be kept free from water. The company now operating spent a good deal of time and money before they felt sure that the lead would justify the purchase of a crushing outfit. Farther along on the same lead is the location of the British American Company. The party next visited the concentrating-mill, which was found in operation. The present manager, Mr. Brown, has revised the whole concern, put in new and more efficient machinery, and claims that the mill is good to work up 200 tons of refuse per day. By this process 100 tons of the quartz dust, previously left as worthless, is worked over and all the gold in it retained in one ton of amalgam, the balance being again washed off. This amalgam, which contains other metals in working quantities, besides gold, is shipped to Swansea and there retorted. It is proposed to remove the mill to Waverley and go through the immense piles of refuse which are lying there. The party reached town at 2 o'clock and went off for a look at the rocks in the neighbourhood of Mount Pleasant. This evening they were entertained at dinner by his Honour Governor Richey. The mines visited will be more fully referred to in next week's Journal.

SCHWAB'S GULLY.—Messrs. Sampson and Co. write that “in consequence of large purchases of these shares having taken place this week at 7 $\frac{1}{2}$, and the near approach of the announcement of the quarter's dividend, the price has risen to the above figure.” The market quotation is 6 to 6 $\frac{1}{2}$.

OSCAR GOLD MINE.—From a telegram received from the manager it is stated that the stamping and amalgamating machinery will be set to work on Thursday next, Oct. 16. The greatest interest is shown as to the results of the crushings, and if they are at all equal to anticipations there will be considerable excitement about the undertaking. The latest accounts from the mine are most favourable. The shares are now quoted at about 17. (10s. paid), but on the first indications of success it is impossible to say what they may rise to.

NEDENES COPPER MINES.—Advices received this week from the mines state that they have cut the north lode. They intend continuing the cross-cut a little further, and then prove the lode. The other points in operation are producing the usual quantities of ore, and are looking very favourable, and at Sletne the lode in the shaft is improving. The second furnace is now nearly completed; the roasting heap for calcining has been begun. The cargo of coke for the furnaces has arrived at the port, and is being carried up to the works and everything is being pushed for making early returns of regulus.

GOLD AND SILVER.—Messrs. PIXLEY and ABELL (Oct. 9) write:—The Bank of England has sold 237,000 $\frac{1}{2}$ bar gold for New York, 55,000 sovereigns for Egypt, and 50,000 $\frac{1}{2}$ sovereigns for Lisbon. The Tamar brought 5800 $\frac{1}{2}$ from West Indies; Hevelius, 330 $\frac{1}{2}$ from Buenos Ayres; Chimborazo, 20,600 $\frac{1}{2}$ from Australia. The Kalsar-i-Hind takes 35,000 $\frac{1}{2}$ bar gold to Bombay, and 55,000 $\frac{1}{2}$ in sovereigns to Alexandria.—Silver has remained at the same quotation, 50 $\frac{1}{2}$ d. per oz. standard, as given in our last; but to-day, owing to a falling off in the Indian Exchanges, and the small amount offering, the market is very quiet. The Germanic brought from New York 44,000 $\frac{1}{2}$. The Kalsar-i-Hind has taken 45,000 $\frac{1}{2}$ to Bombay, and 15,500 $\frac{1}{2}$ to Calcutta. Mexican dollars, owing to the paralysation of trade, on account of the uncertain relations of the French and Chinese Governments have given way, and are now quoted nominally 54 $\frac{1}{2}$ d. per oz. There have been no arrivals of consequence during the week. The Ganges takes to-day 88,400 $\frac{1}{2}$ for Penang, 36,700 $\frac{1}{2}$ for Hong Kong, and 5200 $\frac{1}{2}$ for Shanghai. The quotations for bullion are—Bar gold, fine, 77s. 9 $\frac{1}{2}$ d. per ounce standard; bar gold containing 20 dwt. silver, 77s. 11d. per ounce, standard; bar silver, fine, 50 $\frac{1}{2}$ d. per ounce standard; weak; bar silver containing 5 grs. gold, 51 $\frac{1}{2}$ d. per ounce standard; cake silver, 54 $\frac{1}{2}$ d. per ounce; Mexican dollars, 50 $\frac{1}{2}$ d. per ounce standard; cake silver, 54 $\frac{1}{2}$ d. per ounce; Mexican dollars, 50 $\frac{1}{2}$ d. per ounce standard; 51 $\frac{1}{2}$ s. to 52s. discount 3 per cent.

GAS SHARES.—The principal business in these shares, according to this evening's report of Messrs. W. L. Webb and Co., of the Stock Exchange and Finch-lane, has been:—Alliance and Dubbin Consumers' Maximum 17 per cent., 19 $\frac{1}{2}$ %; Bombay (Limited), 7 to 7 $\frac{1}{2}$; ditto, New 53 $\frac{1}{2}$ %; British Gas Light (Limited), 43 $\frac{1}{2}$ to 43 $\frac{1}{2}$; Buenos Ayres New (Limited), 13 $\frac{1}{2}$ to 13 $\frac{1}{2}$; Continental Union (Limited), 19 $\frac{1}{2}$ to 20 $\frac{1}{2}$; ditto, New 15 $\frac{1}{2}$ %; ditto, 15 $\frac{1}{2}$ to 15 $\frac{1}{2}$; Gas Light and Coke, A, Ordinary, 22 $\frac{1}{2}$ to 23 $\frac{1}{2}$; ditto, C, and E, 10 per cent. profit, 23 $\frac{1}{2}$; ditto, 10 per cent. Dividends Stock, 11 $\frac{1}{2}$; Imperial Continental, 206 $\frac{1}{2}$ to 209 $\frac{1}{2}$; Oriental (Limited), 5 $\frac{1}{2}$ ditto, New, 7 $\frac{1}{2}$ to 7 $\frac{1}{2}$; Rio de Janeiro (Limited), 23 $\frac{1}{2}$ to 23 $\frac{1}{2}$; South Metropolitan, A, 26 $\frac{1}{2}$ to 26 $\frac{1}{2}$; ditto, B, 22 $\frac{1}{2}$ to 22 $\frac{1}{2}$; Gas stocks quiet, unchanged, excepting Imperial Consolidated, which show a rise of 2 to 3 per cent.

INSURANCE SHARES have, according to this evening's report of Messrs. W. L. Webb and Co., of the Stock Exchange and Finch-lane, been in follows:—Atlas, 15 $\frac{1}{2}$ to 15 $\frac{1}{2}$; Employers' Liability Association (Limited), 19 $\frac{1}{2}$ %; Fire Insurance Association (Limited), 1 $\frac{1}{2}$ %; Guardian Fire and Life, 65 $\frac{1}{2}$; Imperial Fire, 15 $\frac{1}{2}$ %; Indemnity Marine, 14 $\frac{1}{2}$ to 14 $\frac{1}{2}$; Liverpool, London, and Globe Fire and Life, 23 to 24 $\frac{1}{2}$; London, 52 $\frac{1}{2}$; Maritime (Limited), 15 $\frac{1}{2}$ %; Mercants' Marine (Limited), 5 $\frac{1}{2}$; Rock Life, 7 $\frac{1}{2}$; Royal Exchange, 385 to 386. Insurance firm. The old companies, Royal Exchange, Alliance, Fire, Life, Guardian, &c., being enquired for. Commercial Union flat.

TRAMWAYS.—The closing prices of this evening, as quoted by Mr. Wm. Abbott, of Tokenhouse-yard, are given in tabular form in the last page of the Journal.

LEAD ORES.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
Oct. 6	Foxdale	100	6 0 0	Panther Lead Co.
9	North Hendre	40	7 6 0	Adam Eytom.
	Rhosemor	50	7 10 0	Walker, Parker, & Co.
	West Treloren	10	7 10 0	Quirk, Barton, and Co.
	Roman Gravels	12 $\frac{1}{2}$	7 1 0	Adam Eytom.
	ditto	12 $\frac{1}{2}$	7 1 0	Rumford Company.
	ditto	12 $\frac{1}{2}$	7 1 0	Sheldon, Bush, & Co.
	ditto	50	7 2 0	Quirk, Barton, and Co.
	ditto	12 $\frac{1}{2}$	7 1 0	ditto
10	South Darren	25	12 1 0	Walker, Parker, & Co.

N.B.—Persons who do not reside within the District are equally eligible for examination with those who do.

COAL MINES REGULATION ACT, 1872.

EXAMINATION FOR MANAGERS' CERTIFICATES OF COMPETENCY.

DISTRICT UNDER THE CHARGE OF JOSEPH DICKINSON, Esq., H.M. INSPECTOR OF MINES.

PERSONS desirous of being EXAMINED in this District for MANAGERS' CERTIFICATES OF COMPETENCY, under the above-named Act, should at once COMMUNICATE with the Secretary to the Board of the above-mentioned District at the following address:—

M. W. PEACE, The Arcade, King-street, Wigan.

By order of the Board, MASKELL WM. PEACE, Secretary.

N.B.—Persons who do not reside within the District are equally eligible for examination with those who do.

C. PASS AND SON, BRISTOL,

ARE BUYERS OF

LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS, ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c., and DROSS or ORES containing COPPER, LEAD, AND ANTIMONY.

GEO. G. BLACKWELL,

26, CHAPEL STREET, LIVERPOOL,

HANDLES

MANGANESE, BARYTES, SPARS, and ALL ORES on SALE or PURCHASE.

ASSAYING.

Mr. EDGAR JACKSON,

(Assoc. R. S. M. F. I. C.)

DENT'S
WATCHES
AND
CLOCKS.

NEW ILLUSTRATED CATALOGUE
of High-Class Watches and Clocks at
Reduced Prices sent Post Free on application to E. DENT & CO., Makers to
the Queen, 61, Strand, London, W.C.;
or 35 Royal Exchange, E.C.

GEORGE ELLIOT & CO.,
(GEORGE ELLIOT & CO. since 1864, and previously
GLASS ELLIOT & CO., Makers of the First Atlantic Cable),
WIRE ROPE MANUFACTURERS.
LONDON OFFICES—
23, Great George St., Westminster, London,
WORKS—
BUTE DOCKS, CARDIFF.

SPECIAL IMPROVED PLOUGH STEEL,
PATENT STEEL AND IRON WIRE ROPES
For Colliery, Mining, Agricultural, and General Purposes.
ROPES FOR AERIAL TRAMWAYS,
SHIPS' RIGGING.
COPPER LIGHTNING CONDUCTORS,
GALVANISED STRAND,
SPECIALLY FLEXIBLE ROPES, &c., &c.

Care is given to ensure the Ropes being constructed in the way most suitable for their particular work, and by the use of specially selected and tempered metal, the greatest possible uniformity is obtained.

THE COMMISSIONERS OF SEWERS FOR THE LEVELS
of CALDICOT and WENTLORGE, in the County of Monmouth,
REQUIRE the SERVICES of an experienced VALUER OF MASONRY and
EARTHWORK to INSPECT the WALLS and other SEA DEFENCES on both
Levels, and assess the sum required (1) for putting the same into an efficient
state of repair; and (2) the cost on an average of years to maintain the same
when so repaired with a view to commute the liabilities by payment of an
annual rent charge.

The Level of Caldicot extends from the mouth of the River Wye, near Chepstow, to the mouth of the Usk at Newport; and the Level of Wentlorge from the mouth of the River Usk, at Newport, to Rumney Bridge, near Cardiff, a distance in the whole of about 35 miles.

No expenses incurred before appointment by any of the candidates will be allowed.

Previous experience in Engineering Work of the kind indispensable.
Applications, stating amount of remuneration required, to be sent in to the
undersigned on or before 18th October instant.

By Order,
H. STAFFORD GUSTARD,
Usk 1st October, 1884.
Clerk to the Commissioners.

MASON AND BARRY (LIMITED).
SAN DOMINGOS MINE, PORTUGAL.
DIVIDEND.

Notice is hereby given, that an INTERIM DIVIDEND for the half-year ending
30th June, 1884, at the rate of EIGHT SHILLINGS per share, free of income
tax, was DECLARED at a Board Meeting held this day, the same being PAY-
ABLE on and after MONDAY, the 20th instant, either at the office of the com-
pany, 37, Cannon-street, London, E.C., or in Paris at the Comptoir d'Escompte
de Paris.

The holders of Share Warrants to Bearer must leave coupons (Series No. 21)
for examination four days previous to payment, between the hours of Eleven
and Two on any day except Saturday.

Coupons may be presented after to-day, and must be listed on the company's
printed form, obtainable at the company's office. Coupons required to be paid
in Paris will be paid at the current rate of exchange.

The Transfer Books of the company will be closed from Saturday, the 11th
October, to Monday, the 20th October, both days inclusive.

By order of the Board,
JOHN G. BARRY, F.C.A., Secretary.
Office of the Company: 37, Cannon-street, London, E.C., 8th Oct., 1884.

THE LINARES LEAD MINING COMPANY
(LIMITED).

Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of
the shareholders of this company will be HELD at this office, on THURSDAY
next, the 16th inst., at One o'clock, P.M.

To receive the accounts, balance-sheet, and reports of the directors and
auditors for the half-year ending 30th June last.

By order of the Board,
H. SWAFFIELD, Secretary.
No. 5, Queen-street-place, London, E.C., 8th October, 1884.

THE FORTUNA COMPANY
(LIMITED).

Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of
the shareholders of this company will be HELD at this office, on THURSDAY
next, the 16th inst., at half-past One o'clock P.M.

To receive the accounts, balance-sheet, and reports of the directors and
auditors for the half-year ending 30th June last.

By order of the Board,
H. SWAFFIELD, Secretary.
No. 5, Queen-street-place, London, E.C., 8th October, 1884.

THE ALAMILLOS COMPANY
(LIMITED).

Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of
the shareholders of this company will be HELD at this office, on THURSDAY
next, the 16th inst., at Two o'clock P.M.

To receive the accounts, balance-sheet, and reports of the directors and
auditors for the half-year ending 30th June last.

By order of the Board,
H. SWAFFIELD, Secretary.
No. 5, Queen-street-place, London, E.C., 8th October, 1884.

THE YORKSHIRE COLLEGE, LEEDS.

COAL MINING CLASSES

By Instructor ARNOLD LUPTON, M.Inst.C.E., F.G.S.

The Introductory Lecture on "Mining in North America" will be delivered in
the Philosophical Hall on Monday, Oct. 20th, at Five P.M. Admission free.

Mr. LUPTON'S Second Year Course will begin at the Yorkshire College on the
27th October at 5.30 P.M.

Prospectus may be had post free from the Secretary.

INTERNATIONAL INVENTIONS EXHIBITION,
LONDON, 1885.

DIVISION I.—INVENTIONS. DIVISION II.—MUSIC.

PATRON.

HER MAJESTY THE QUEEN.

PRESIDENT.

H.R.H. The PRINCE OF WALES, K.G.

Applications to exhibit must be made on printed forms, which will be supplied on application to the Secretary, International Inventions Exhibition, South Kensington, S.W.

These must be filled up and returned on or before the 1st Nov., 1884.

LE MOUVEMENT INDUSTRIEL BELGE.

REVUE TECHNIQUE, COMMERCIALE, ET FINANCIERE,
sous la direction de Mr. l'Ingénieur P. DESGUIN. Paraisra le 4 Juillet,
1884, et successivement les Vendredis de chaque semaine. Il contiendra des
articles d'actualité sur l'agriculture, la navigation, les mines, la construction,
les machines, les chemins-de-fer, les canaux, les travaux publics, le droit indust-
riel et commercial, les inventions, et les perfectionnements, et principalement
sur l'Exposition Internationale d'Anvers, dont il publiera les plans, les dessins,
et documents de tous genres.

TEXTE ILLUSTRE DE BELLES GRAVURES.

Abonnements annuels:—Belgique, 25 francs; pays voisins, 30 francs.

Adresse à Mr. NICOLAS FASSE.

Ingénieur-Administrateur.

Bu des Croisades 32, à Bruxelles.

NOTICES TO CORRESPONDENTS.

BELT COPPER MINES.—"H. D." (Westminster).—We can see nothing illegal in the resolution, and it is unlikely that the Chairman and his friends would lend £6000, without some further inducement than a mere first mortgage with 6 per cent. interest on the assets of the company; in the present condition of the concern a bonus of 11,000 nominal of fully paid shares is by no means extravagant. You had better consult your solicitor before subscribing any of the fresh funds sought, but the resolution certainly states that the debentures are to be first mortgage debentures. If the Chairman and his friends are to be secured their £6000, until the whole of the 20,000 debentures shall have been subscribed, the position of early subscribers would be very risky, but it is unlikely that this is intended. Under the circumstances it is not fair to say that "the lenders become our creditors on annihilating terms." The mine has temporarily collapsed, and presumably the 250,000 capital is lost, so that the question to be considered is whether the money to be borrowed will make the concern profitable on 270,000 capital; if it will do so those providing it are entitled to liberal inducements.

ROYAL SCHOOL OF MINES.—"Student" (Westminster).—You would do well to acquire ample preparatory knowledge before entering, or you will expend your £50, to no purpose. It would probably be preferable to attend the classes of the Mineral Association of Cornwall and Devon for a year, and inform the teacher that your object is to go through the Royal School of Mines course; he will then tell you how to prepare. If you be determined to work there is no reason why the £50. should not carry you through, as there are many money prizes to be won by students.

SMALL MOTOR.—"H. H." (Hackney).—There was a small motor introduced for driving sewing machines, by Messrs. Dennis and Co., of Holborn, but we have heard nothing of the machine or the makers for years. As far as we recollect it was a small engine under the sewing machine table supplied with steam from about a 1 gallon boiler heated by gas. The speed was regulated by the foot of the lady who worked it, operating a lever connected with a throttle valve through which the steam reached the engine. The price was about 10/- inclusive, but the invention was not much used.

COMMANDITE PARTNERSHIP.—"Manufacture" (Bradford).—We cannot give without reference the year and number of the Act which will enable capitalists to supply you with money for the business without incurring the liabilities of partners, but will give details next week. The control of the business will remain with yourself as heretofore, but in the event of the company which supplies the funds becoming dissatisfied with your management by withdrawing the funds. Of course the arrangement would be but a substitute for the French commandite system.

SULPHATE OF BARYTA.—Can any correspondent tell me the prices of sulphate of baryta, also of gypsum.—W. T.

RECEIVED.—"E. C. B." (Knightsbridge).—It seems that the company is defunct, but was not formally wound-up, because there were no assets to cover cost of liquidation.—"D. K. A." (San Diego).—Short letter inserted; longer one next week; mail in very late.—"H. D." (Yardley).—We do not know who is dealing in the shares mentioned, as we never purchase or sell; apply to a respectable broker.—"J. S. P." (New York).—Inserted.—"D. H." (Halifax, N.S.).—Partly attended to; remainder next week. Mail very late.—"J. G. E."—There is no particular form for relinquishment of shares in Cost-book mines.

able education could be easily afforded in our elementary board schools.

We can quite understand that should some prescient and far-seeing member have the temerity to advocate such an education being taught in our board schools, the bugbear of expense will be at once started to frighten the public out of its property. But the purchase of a few tools or a few scientific apparatus need not be such a costly affair, nor would the expense be great for a few competent masters to give an understandable lesson or two, with experiments. A few hundred or a few thousand pounds annually laid out in this direction would be a most judicious and in the long run economic expenditure. Our more advanced scientific and technical schools and colleges sadly want help and encouragement. These elementary scholars would be the recruits for such colleges. We want to awaken an enthusiasm for the better technical and industrial education of the youths of this country. It has been too much neglected in the past. The country is now beginning to see its importance and value. Our present and future prosperity depends upon our great mining and staple industries, and these industries must be properly and efficiently governed and worked if we would successfully compete with the ever-increasing competition which besets us on all sides. Technical education would teach the youths of the kingdom that real hard manual work is still honourable and praiseworthy and also far more remunerative than mere "clerkship." The craze for education is fast unfitting the youths for honest artisanship and engineering and factory work, inculcating ideas of gentility which will eventually have an injurious tendency, rendering them unsuitable for the duties which should properly devolve upon them, and which their fathers took a pride in filling. Whilst we would not discard "the three R's of education" we would certainly add to it the rudiments of sound technical and industrial instruction.

NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS.

The paper to be read this (Saturday) evening will be "On the Principles of Electric Lighting, and the Construction and Arrangement of Electric Light Apparatus," by Mr. SYDNEY F. WALKER, and through the courtesy of Mr. Theo. Wood Bunning, the secretary of the institute, we are enabled to subjoin abstract. The writer commences his paper by defining generally the subject he treats of, more especially applying his remarks to conductors and the terms employed to denote the force, tension, and amount of electric currents. He then describes the different modes of generating electricity, illustrating the structure and peculiarities of construction of many of the principal dynamo machines. The importance of having these machines driven by engines worked with the utmost possible uniformity of motion is explained and insisted upon, and then the danger arising from the use of electrical apparatus is pointed out, as also are the modes of reducing such danger to a minimum.

After having finished the description of the construction of the different dynamo machines and magnetic generators now in use, the writer proceeds to describe dynamos generally and their uses, remarking that that machine is best that is simplest, strongest, least liable to get out of order, and that gives the best return both commercially and electrically for a given expenditure of mechanical force. Given two machines equal in other respects, or nearly so, preference should be given to the simpler and stronger rather than that giving the higher returns. The terms relating to electrical efficiency are then explained. The author then proceeds to describe the various modes of lighting by electricity, dividing the principle generally into two—first, arc lamps; and second, incandescent lamps; semi-incandescent lamps, as he explains, having been entirely given up. The arc lamp takes its name from the arc, or bridge, formed between the ends of the two carbon rods when light is being given out.

Many of the principal modes by which the consumption of the carbons is regulated are described, as are also the different modes of establishing circuits of a number of arc lamps. The Pilen and Gölcher lamps are then alluded to, together with electrical lights, which are known generally as electric candles consisting of two or more sticks of carbon, which are usually parallel to each other and placed vertically, the spark forming an arc between the points. Incandescent lamps are next described, the honour of first perfecting the application of which the writer believes to be due to Mr. Swan. Other incandescent lamps, [although their inventors usually adopt some form of globe and connection differing slightly from those of the Swan lamp, really only differ in the substance and form of the filament. Edison used carbonised bamboo; Maxim, Bristol-board; Lane-Fox, bass-broom; and Crookes, carbonised cotton. These three lamps are then described in detail. A new lamp on the same lines as Swan, called the "Woodhouse and Rawson," is the only one that promises, so far as the writer's experience goes, at present to rival it. The resistance and insulation of the wires is then touched upon, and the different substances used to insulate them described. The manner in which the connections are made between the dynamo lamps and the wires is also explained.

A description is then given of the installation of arc and incandescent lamps at Cymmer Colliery, in South Wales, where the Brocks lamps are used, and also of the arrangement of 50 lights fixed at Appleton Colliery, belonging to the Hetton Coal Company. The paper concludes with details of a few necessary accessories in the shape of testing machines, &c. This communication of Mr. Walker's will be profusely illustrated when it appears in the transactions. A number of diagrams will be exhibited, and experiments made at the reading of the paper.

OUR IRON-MAKING DISTRICTS—THEIR PROGRESS AND DECLINE.

During the last 10 years great changes have taken place in the production of pig-iron in the various mining districts throughout the kingdom, some of the oldest of which show a marked decline indicating exhaustion of the raw material or the fuel for smelting it. Other districts, however, now show to greater advantage to what they did, and this is more especially the case with regard to those counties in which hematite ironstone is raised, showing that there has been a greatly increased demand for steel. The ore of the coal measures, too, has been nearly abandoned in several districts for the more cheaply raised stone of the inferior oolites and lower limestone, such as are now worked in Northamptonshire, Lincolnshire, Bedfordshire, and Oxfordshire, where they are practically inexhaustible. In connection with these ores it is an interesting fact that iron is now made within 50 miles of the Metropolis, in Northamptonshire, and in all probability, before long it will be made much nearer, for ironstone has been found in Buckinghamshire in the lower green sand. South Staffordshire is one of the oldest of our pig-making districts, having fully one-third of the total number of rolling mills in the kingdom, yet its production of pig-iron has fallen off greatly of late years, whilst the coal seams are fast hastening towards exhaustion, and the ironstone measures as well, some of the seams of the latter being below the thick coal.

In 1870 the yield of pig from 114 furnaces in blast was 588,562 tons, whilst in 1883 there were only 31 furnaces in blast, producing 285,325 tons of raw iron. North Staffordshire has maintained its position better, still not so much iron was turned out last year as there was in 1874, although it has advantages over many districts, for several of the coal seams are roofed by fine beds of ironstone, so that both are worked together. Yet it appears that whilst in 1870 there were 37 furnaces in blast, which turned out 910,134 tons of pig, yet last year there were only nine furnaces going, which produced 267,911 tons of iron. The adjoining county, Shropshire, another of our oldest iron-making districts, has also fallen off of late years. The Coalbrook Dale coal field has been nearly exhausted, and there is to be seen in many parts of it abandoned coal and ironstone mines, and the remains of engine-houses that were at one time connected with mines and ironworks. In 1870 the production of pig was 337,443 tons, in 1874 it had fallen to 126,055 tons, and 1883 it had still further declined to 77,716 tons. In the more recently-discovered ironstone fields, in the newer formations, the make of pig has progressed at a rapid rate, and no doubt will continue to do so.

In North Yorkshire, or Cleveland, the increase has continued from year to year, as it has also in Lincolnshire and Northamptonshire. Scotland has also well maintained its position, whilst long years have elapsed since the valuable iron ore of Ireland, especially that of Lurgair, which yielded 40 per cent. of metallic iron, was smelted at the Arigna Ironworks, on the shores of Lough Allen.

But it is to be hoped that iron will be again produced in Ireland, and which could not fail to pay, for coal giving 66 per cent. of coke is found closely connected with the ironstone. The progress and decline of the different districts as regards the production of iron will, however, be seen from the following figures, giving the quantities raised in 1874 and 1883:

	1874.	1883.
Cumberland	Tons 390,840	876,445
Derbyshire	301,687	353,474
Durham, &c.	862,377	912,194
Glamorganshire	354,244	384,128
Lancashire	488,672	796,700
Lincolnshire	67,266	237,068
Monmouthshire	360,480	522,135
Northamptonshire	53,760	216,641
Nottinghamshire		68,740
North Wales	51,868	39,377
Shropshire	126,055	77,716
Gloucestershire, &c.	78,254	46,268
Staffordshire, North	273,501	267,911
Staffordshire, South	453,400	285,325
Worcestershire		144,398
Yorkshire, North	1,158,471	1,867,329
Yorkshire, West	163,856	304,381
Scotland	807,677	1,129,000
Total	5,991,408	8,529,300

During the last ten years it may be said that the production varied a good deal, but the greatest increase in any one year was in 1880, when the output was 1,753,896 tons in excess of that for 1879. The actual make during the ten years was—

1874	Tons 5,991,408	1879	Tons 5,995,337
1875	6,365,462	1880	7,749,233
1876	6,555,997	1881	8,144,449
1877	6,608,664	1882	8,586,680
1878	6,381,051	1883	8,529,300

MANCHESTER GEOLOGICAL SOCIETY.

The annual meeting of the members of the above society was held at Manchester on Tuesday, Mr. JOSEPH DICKINSON, one of Her Majesty's Chief Inspector of Mines, occupying the chair. The hon. sec. (Mr. J. S. Martin, Inspector of Mines), read the report for the past year, and the following is an abstract:—The society during the session just concluded had continued to make satisfactory progress. The work done had maintained the high standard of previous years. The number of members had increased satisfactorily, notwithstanding deaths, resignations, and removals, whilst the applications received, requesting exchange of publications with many of the most important societies, both at home and abroad, was a pleasing indication of the position which the society had now attained. The attention directed during recent years to the question of miners' safety lamps had resulted in several being brought under the notice of the members during the session—the Marsaut, Pieler, and Wolff lamps being, perhaps, the most important of them. The Marsaut, from the high degree of safety and lighting power which it had been proved to afford under varying tests, to which it had been subjected, the Pieler, on account of the small quantity of fire-damp it was able to indicate, and the Wolff lamp, from the fact of its containing within itself the means of relighting without the necessity of opening the lamp or exposing the flame to the outside atmosphere, had attracted considerable attention. The speciality in the last-named lamp if found not to create a source of danger, would prove a boon to miners who frequently were employed at long distances from the lamp stations. The Council regretted that the interest evinced at the early meetings held at Wigan had not been sustained, but trusted that it had fallen off through temporary causes only, and that it would revive during the ensuing session.

It had been decided that during the ensuing session two meetings only instead of three should be held at Wigan, and it was hoped the members would come forward with papers, and otherwise assist in maintaining the usefulness of the society. It was pleasing to find that the treasurer's statement was a satisfactory one, showing a substantial balance of income over expenditure. The library had also continued to increase as heretofore, and the additions had been so numerous since the present catalogue was prepared that a new or revised one with the additions would soon have to be undertaken. In conclusion, the report referred with regret to the death during the past year of several of the most respected members of the society; and on the motion of Mr. Tonge, seconded by Mr. Burnett, it was unanimously adopted. The election of officers for the ensuing year; and on the motion of Mr. Livesey, seconded by Mr. Woodward, Mr. G. C. Greenwell, F.G.S., was unanimously elected President of the Society. The remaining offices were filled up as follows:—Vice-Presidents: Messrs. Clegg, Livesey, Mark Stirrup, W. S. Barrett, Henry Hall, and H. A. Woodward.—Treasurer: H. M. Ormerod.—Hon. Secretaries: Messrs. J. S. Martin and Mark Stirrup.—Council: Messrs. Wm. Bryham, Burnett, T. Grimké, J. Tonre, J. Radcliffe, W. Watts, G. C. Greenwell, C. Hardwick, J. L. Hedley, G. H. Hollingworth, Geo. Peace, and Geo. Wild.—Auditors: Messrs. A. Pilkington and J. Atherton. The usual votes of thanks then closed the proceedings.

PROGRESS OF COMMERCE.

The Returns issued on Wednesday in relation to Trade and Navigation, as compared with those for September last year show practically no change as regards the broad results, and very little of importance even in detail. The past month comprised one Sunday more than corresponding period, and, therefore, one working day less, for which some allowance must be made. Our exports, valued at 20,506,000^l, equalled those of last year, being a fraction over, but our imports were 32,249,000^l, or a fraction less. The reshipment of foreign and colonial produce was estimated at 6,356,000^l, or an increase of rather more than 1 per cent. The three quarters now past represent a reduction, however, in our exports of about 2 per cent., and in our imports of 7 $\frac{1}{2}$ per cent., while in the reshipments an augmentation of fully 1 per cent. is shown. Thus, for the month the returns give no indication of improvement in our foreign trade, and, so far, the year has fallen behind its immediate predecessors. The shipping accounts are not unfavourable, and an improvement is shown in the tonnage employed in the home coasting trade.

Our export trade for the month shows a large increase under the head of yarns and textile fabrics. Chemicals have apparently improved in sympathy, and there has been some increase in raw materials; but the chief feature has been the falling off in metals and metal manufactures, mainly through the depression in the iron trade, which, so far as these returns are concerned, does not afford any sign of relief, although, it is true, the falling off in iron and steel is 16 per cent. in quantity and 15 per cent. in value, against 25 per cent. in both respects in the previous return. Coal and fuel maintains, however, an increase of 6 $\frac{1}{2}$ as regards tonnage and 4 $\frac{1}{2}$ per cent. in value. The shipment of machinery shows further contraction.

In the import account the only material falling off has been in cattle, sheep, &c. On the other hand, raw materials, manufactured articles, and tobacco exhibit most increase. Cotton shows an exceptional decline amongst raw materials; and, as regards edible articles, the feature is the arrival of 11 $\frac{1}{2}$ per cent. more wheat, with a nearly corresponding reduction in value—the result of the fall in price since last year. Maize has come to hand much less fully than other cereals, which, together with flour, show an increase. As regards the reshipments, the leading articles have mostly declined, the principal exceptions being rice, wool, indigo, and leather.

A bearing upon the mining industry of the country there results shown are by no means satisfactory, for the decrease in the value of metals has invariably been greater in proportion to quantity, and while in

some cases the imports have earned an improved value our exports only show loss. Taking copper, we find that the import tonnage of ore was 2 per cent. in excess of last year, and the value as much as 50 per cent. more; while as regards the export total of copper there was an increase of 4 per cent. in quantity, but a falling off of 11 per cent. in value. In tin the import was 18 per cent. greater, and the value only 2 $\frac{1}{2}$ per cent.; but the export of tin, while showing an increase of 5 per cent. in quantity, declined on the contrary 7 per cent. in value. These figures show clearly how the home exports are handicapped by foreign imports. Of lead, again, the import was 8 and 21 per cent. less respectively in quantity and value, against 30 and 37 per cent. in the home export. The arrivals of regulus and the partly wrought metal extensively declined, and iron ore fell off 12 per cent. in quantity compared with 25 per cent. in value. Pyrites showed an improvement, and quicksilver recorded an advance in price. The reshipment of both tin and copper was on a smaller scale. The movements of the precious metals exhibit a diminished import and an increased export resulting in a balance against this country of 1,262,000^l.

SCOTCH PIG-IRON WARRANT MARKET.

Mr. W. WILSON (Glasgow, Oct. 9) writes:—The warrant market has been very stationary during the past week. The moderate business doing is for the most part on trade account. It is evident, therefore, that iron has not yet much attraction for investors, although the average price for 1884, so far as it has gone, is the lowest since 1851, in which year it was 40s. Id. Scientific appliances may have cheapened the cost of production as compared with 30 years ago; but wages in all departments are now on a much higher platform, and Government regulations for the safety of workmen, and of miners especially, have also materially added to cost. Shipments for the week do not compare favourably. One furnace has been put out at Shotts and one at Dalmellington Works, making the number blowing 92: 695 tons were taken out of store here last week, and 120 tons at Middlesbrough.

Thursday, Oct. 2.	Friday, Oct. 3.	Monday, Oct. 6.
41 $\frac{1}{2}$, 41 $\frac{1}{2}$	41 $\frac{1}{2}$, 41 $\frac{1}{2}$	41 $\frac{1}{2}$, 41 $\frac{1}{2}$
Tuesday, Oct. 7.	Wednesday, Oct. 8.	Thursday, Oct. 9.
41 $\frac{1}{2}$, 41 $\frac{1}{2}$	41 $\frac{1}{2}$, 41 $\frac{1}{2}$	41 $\frac{1}{2}$, 41 $\frac{1}{2}$
Price of Scotch Warrants, Oct. 6.	1884.	1881.
Furnaces in blast in Scotland do.	41 $\frac{1}{2}$	41 $\frac{1}{2}$
Iron in store at this date	92	109
Shipments of Scotch pig-iron for 1 week ending Oct. 3	583,002	588,878
Do, since beginning of year	9,655	12,023
Price of Middlesbrough, No. 3, Oct. 6	420,831	505,637
Furnaces in blast Middlesbrough dist.	36 $\frac{1}{2}$	39 $\frac{1}{2}$
Middlesbrough Iron Imported at Grangemouth, week ending Oct. 3	4,260	2,920
Do, do, since beginning of year	199,398	203,470
	181,567	232,386

PRACTICAL MINING — THE GOLDEN QUARTZ REEFS OF AUSTRALIA.—We are now publishing from week to week a series of extremely valuable communications from Mr. WILLIAM NICHOLAS, F.G.S., the Lecturer on Mining in the University of Melbourne, the engineering students in which institution, whether they be destined for the mining or general branches of the profession, are admitted to be as well able, upon the successful completion of their course, to hold their own for sound technical knowledge as those from any scientific college or university in the old world or the new. Mr. Nicholas has had long practical experience in the colony and elsewhere as a mining engineer, and it would be difficult to find anyone in Victoria whose opinion is more generally respected, or whose integrity is more widely recognised, by capitalists and mineowners. The present series will extend to about 20 papers, and as all necessary illustrations will be given, working miners and general readers will be able to acquire the best possible knowledge obtainable without actual observation and experience.

MANCHESTER SHIP CANAL.—A great town's meeting of ratepayers and owners of property in Manchester, called by the Mayor (Mr. P. Goldschmidt), in pursuance of a requisition, and held under the provisions of the Borough Funds Act, took place in the Manchester Town Hall, on Monday, to consider the proposal that the Corporation should subscribe 18,000^l to the fund for promoting the Bill next session. The hall was crowded, and many persons were unable to get in. Mr. Daniel Adamson, Chairman of the Provisional Committee, on taking his seat was greeted with loud cheers, and the greatest enthusiasm for the scheme was displayed throughout the meeting. The following resolution was moved:—“That this meeting consents to the Mayor, aldermen, and citizens of the City of Manchester promoting, in conjunction with others, a local and personal Bill in Parliament for the purpose of incorporating a company and empowering such company to construct a canal from the River Mersey to the City of Manchester navigable for ocean steamers and ships of large burthen, and to the contribution out of the City rate to the cost of such promotion of a sum not exceeding 2d. in 1 $\frac{1}{2}$ upon the annual rateable value of the City.” Mr. Adamson explained that no amendment could be moved, the meeting having simply to vote for or against. Mr. Alderman J. J. Harwood seconded the resolution, and spoke of the immense benefit which would be conferred upon the City by the construction of the canal. Mr. Ramsbottom, an engineer, Queen's-road, amid a storm of opposition, challenged Mr. Harwood to show who would reap the benefit of the construction of the canal. The resolution was put to the meeting, and carried by an overwhelming majority, only about 20 persons voting against it. Hereupon Mr. W. A. Lynde, solicitor, demanded a poll on the question. The proposal was received with groans and hisses, and cries of “Shame.” When order had been restored the Town Clerk (Sir J. Heron), who had in the meantime been speaking to Mr. Lynde, explained that Mr. Lynde had made his demand as solicitor in that district to the London and North-Western Railway Company. At this the groans and cries of “Shame” were renewed. The Mayor intimated that unless the demand was withdrawn the poll would take place in a few days. The meeting then closed.

REPORT FROM CORNWALL.

Oct. 9.—We remain practically just where we were. The prospects of individual mines indeed continue to improve, but there is no change for the better in the general situation. No one seems to understand why the last fall in the standards should have taken place, but that does not help us to explain the fact away, or to remove the additional inactivity thereby caused. What is now looked for is rather a general recovery of trade than any special improvement in mining. All our rules at present seem to be worked by the exceptions. Tin statistics are certainly too favourable in their general character to account for the low price, and good harvests are commonly supposed to be synonymous with prosperous times. However, that is not the way things are working now. Foreign affairs, both in the Old World and the New, may have something to do with it, but they are by no means adequate to the full explanation of the present situation. The future, however, is still regarded somewhat hopefully.

There are further indications of a reduction in employment, and in every mining district of the county the supply of miners and labourers is now much above the demand. Unless some recovery takes place matters will be very much worse in this direction we fear before the year has reached its close, and that from restriction of operations rather than actual suspensions.

A good deal of interest will naturally be felt in the attempt to float Camborne Vean as a limited company. There is no doubt that the mine is one well worthy of attention, and that all the efforts made to launch it under new conditions are straightforward and above-board. Still, the time is not a particularly favourable one, and the past history of limited mining in Cornwall is not encouraging; and success, therefore, under such conditions, would go a long way towards solving the problem of bringing mining enterprise fairly within the scope of the Limited Liability principle.

A blasting “accident” at Tincroft has resulted in the death of one of the sufferers. We quote the word “accident,” for the explosion is said to have been caused by the use of an iron bar for tamping, so that in no true sense can it be called an accident at all.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Oct. 9.—There is no change to report with respect to the business doing at the lead mines in Derbyshire, which appears to be of a steady character, the workings giving about average results. There are a good many mines working more or less, but it is only from a few that any appreciable quantity of ore is raised, and no one is likely to speculate or open out new ground. Some of the old mines no doubt could be made to pay were they to be energetically pushed with proper machinery and appliances, of which many are entirely deficient. One or two of the mines are, however, models as regards modern appliances, and are well worth inspecting, especially by those who are interested in mining, or are desirous of going into it. But the present is certainly not the most favourable time for speculating in lead mines even in Derbyshire, where there are privileges in connection with the raising of lead ore that are unknown in any other of our districts.

At the collieries in Derbyshire there has been a decided improvement of late as regards house coal, and an increased tonnage during the last week or two has gone to London from several of the leading collieries. During September upwards of 27,000 tons were sent from Clay Cross to London, and 15,700 tons from Langley Mill. An increased tonnage was also sent from Staveley, Pinxton, Pilsley, and other collieries. Prices in the London market have gone up 1s. per ton, but the same advance cannot be said to have taken place at the pits, although new lists have been issued; some of these show an advance of a shilling, but such cannot be enforced so long as the mines in many districts are only working about four days a week, and coal as plentiful as it is. But the men have taken cognisance of the statement which has appeared in some of the papers, and are already asking for an advance of wages in consequence. But the increase in the price it may be said only affects house coal, whilst in winter other kinds have generally to be sold for less money. This is the case with respect to steam coal, less of which is exported in winter than in the summer months, so that during the former period it has to be sold for less money. Not much hard coal, however, is exported from Derbyshire, there being no seaports within easy railway distance of the leading colliery district. Consequently the ironworks and railway companies take a large proportion of the hard coal that is raised, a comparatively small tonnage only being sent to the Metropolis. Gas coal is going off in larger quantities than for some months past; but this does not affect the price in any way, for the rates are fixed by contracts entered into for a year from July to the end of June. In other descriptions of coal there has been no change to note, riddled and other slack, as well as smudge, being still in but moderate request.

The output of pig-iron from the Derbyshire furnaces has been kept up to the average, although it is not so large as it was even a few weeks ago. There is, however, some little satisfaction in knowing that prices are becoming firmer. A moderate tonnage continues to be sent away, whilst the local consumption does not appear to have declined, although such might now be expected. The mills have run much as usual, and more activity is observable as regards some kinds of merchant iron, more especially on the part of some of the Sheffield manufacturers.

The leading foundries have kept up well so far, more particularly in pipes and other kinds of heavy castings. Malleable iron in light and ornamental castings has also been in tolerably fair request. Steel spades and shovels, for which one firm at least Derbyshire is noted, have also gone off favourably, the only complaint being with respect to the prices paid.

Trade in Sheffield is now in a healthier state than for some months past, for there is no mistaking the revival which has taken place during the last week or two, fully justifying the remark that the last quarter of the year, in all probability, would be the best. Bessemer steel makers are turning out more of the raw material for various purposes, but not much for rails. In crucible steel also there is rather more doing, some heavy castings being made, whilst more is required for the finest description of cutlery and tools. The make of pig in the district is comparatively trifling to what is consumed, so that the imports of it from the West Coast Works have increased of late, what

The leading boiler-makers in this district are very busy, but it is on work taken at low prices. Locomotive builders are also kept well employed, but in other branches of the engineering trade a fall-off continues to be reported.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Oct. 9.—The Quarterly Meetings this week have found the prices of coal pretty strong. Yet there is plenty of room for further improvement. House fuel is rather firmer than ironworks sorts, since the season is now approaching when the demand should show increased activity. Prices, however, are not quotably altered upon those last given. At Wolverhampton yesterday all-mine pigs were redeclared at 80s. for cold-blast, and 60s. for hot-blast, but selling prices were 2s. 6d. to 5s. below these figures. Makers were in no humour to sell, for they declared that present prices were an absolute loss. Hematites were 55s. to 56s. delivered, and competed greatly with all-mines. Native part mines were 45s. to 42s. 6d., and cinder pigs, 40s. to 37s. 6d., and 36s. 6d. Ordinary Derbyshires were 42s. 6d. to 42s., and Northampton 41s. 6d. to 41s. The pig market generally was dull, consequent upon recent large sales. The output of common pigs in the district is increasing at Bilston, but not in other localities. The Chairman of the Iron Trade (Mr. B. Hingley) announced at Wolverhampton that there would be no change in marked bars. They, therefore, stood at 81s. 2s. 6d. for Earl Dudley's brand, and 71s. 10s. nominal for those of the other makers. For export orders these same people are accepting 71s. and 61s. 10s. Common bars were 61s. to 51s. 18s. Sheets were in brisk request at 71s. 7s. 6d. to 71s. 10s. for doubles.

Birmingham Quarterly Meeting to-day fully confirmed tone of Wolverhampton meeting alike as to demand and prices. There was no alteration in crucial prices. Sheets were the only branch that showed a little stiffness, yet the advance of 1 per cent. in the Bank rate had a firming influence. The Tin-plate Makers' Association met and trade was reported quiet, particularly on American account. Stocks were stated to show a little increase on the quarter. The total exports so far this year show an increase on a year ago of 262,000 boxes; 15s. was named for Welsh coke plates and 18s. for charcoal on the open market. However prices were rather lower. The Galvanised Sheetmakers' Association met and the members present announced themselves fully engaged, and as obtaining better prices than three months ago. The Sun and Blackwall brands were quoted 14s. 10s. packed.

An isolated pit in the group of the Saltwells Colliery, Netherton, near Dudley, owned by the Earl of Dudley, was on Saturday night the scene of an outrage which was evidently the work of some of the strike hands. The mine is an open works, and the coal is secured without the aid of a shaft. It is, therefore, easy for inexperienced, colliers and labourers to work in the seams, and during the present unhappy strike workpeople have been employed there. A large number of men were to have been put on this week. About 10 o'clock on Saturday night a loud explosion was heard from the direction of the engine-house, and an examination showed that an attempt had been made to blow up the boilers. Happily, however, the explosion had only displaced one of the boilers from its setting, twisted and turned the fittings, and damaged the engine-house. In the fire hole the remains of a tin breakfast-can were found with traces of gunpowder about it, and a portion of a fuse. A reward had been offered by his lordship's agents, and the Strike Committee have disclaimed any connection with the outrage. During the early part of this week the colliers employed at various pits at Lord Dudley's Lye Cross have been molested by large numbers of men, and the police have taken steps to prevent the recurrence of such intimidation. The Central Strike Committee have again passed a resolution expressing their willingness to begin work at once at the reduced wages if the masters will guarantee them the old wages after a fortnight. It does not, however, seem likely that the employers will accept this offer. The Brierley Hill men have, therefore, requested the Central Committee to have notice papers printed for every miner to give 14 days' notice to leave work on Saturday. It is questionable, however, whether this suggestion will be acted upon.

Mr. William Blakemore, certificated manager of the Aldridge Colliery, near Walsall, was charged before the Rushall magistrates, on Tuesday, with three offences under the Coal Mines Regulation Act. The proceedings had been instituted on instructions from the Home Secretary. On Aug. 12 the Sub-Inspector of Mines visited the colliery. He found that the Brooch seam, in which 30 men were at work, was connected with the two shafts by a road 14 yards long, only 2 ft. wide and 3 ft. high, instead of 4 ft. wide, as was required by the statute. The roof and sides of the road were also insecure. Further, an aperture connecting the seam with the downcast shaft was unfenced, so that anyone working in the seam might walk to the shaft and fall down. The defence was, that it had been decided to abandon the seam, it being a difficult one to work, and, pending the abandonment, the road had been allowed to fall into a bad state. A fine of 20s. and costs was imposed for the first offence, and convictions were recorded in the other two cases, but without a fine.

TRADE OF THE TYNE AND WEAR.

Oct. 9.—There has been on the whole a better feeling here during the past week; freights are improving, and there is more employment for shipping. Collieries throughout the district are fairly employed, and there is still a good demand for best steam coal at late rates, and also for second-class steam coal. The Baltic demand will now fall off, but increased orders are being received from France, Germany, and other foreign markets. Small steam coal is, however, accumulating in considerable quantities at some of the works, and offers are now made to ship it to vessels sailing to America in the place of ballast, at from 2s. to 2s. 6d. per ton. It is surprising that this coal is not converted into patent fuel on the Tyne, as has been done to some extent on the Wear with fair success. The demand for house and gas coal is improving, but for coke it continues quiet. The shipments of coal on the Tyne and Wear, and at Blyth and Seaham, continue good. The shipments in September to London from the Tyne, Wear, and Seaham and Hartlepool, amounted to 307,873 tons—a considerable increase on the month.

There is a steady demand for fire-bricks and fire-clay goods, and also for Portland cement and most kinds of chemicals.

The engine which raised the water at the Shipcote Colliery, Gateshead, having been stopped some water is now passing into the Fellings Colliery, situated in the east and side of Shipcote, and a small quantity is also passing into the Dickham Hall Colliery, on the south side of Shipcote. The Oakwell Gate Colliery was closed many years ago by the water, which now occupies a considerable area in the Hutton seam in the Oakwell Gate, Shipcote, and Tyne Main Collieries.

At the Monkwearmouth Colliery a large quantity of coal continues to be worked. The main seams here have proved of great thickness and excellent quality. The sinking of the shafts was commenced in the year 1826, and coal was reached in August, 1831. The work was of a most difficult character, the great depth, greater than any coal pits of that day, and the large quantity of water met with at the sand bed below the Permian formation 3000 gallons per minute, taxed the mechanical engineers of that day to the utmost. The thickness of the Permian formation (magnesian limestone) is 325 ft., and the total depth of the shaft is not far short of 300 fms. The quantity of coal extracted during the past 50 odd years has been enormous, and the workings are, of course, very extensive. The main roads extend from the shafts in a south-eastern direction about 4½ miles. It has long been contemplated by the owners to sink a new shaft on the south side of the Wear, near Hendon Docks, but there has been much difficulty in arranging with the landowners in that locality about a site; it is, however, expected that an arrangement will be made shortly, and when this is accomplished sinking operations will be at once commenced. The site is a most excellent one for the purpose, as the coal can be shipped at the Hendon Docks, a very short distance from the shaft. The situation is also good one for working the coal beds under the sea, and the experience gained at Ryhope, the next colliery southwards, shows that a large area of coal will be got in that direction. At this colliery the work-

ings have been extended seawards about 1½ mile beyond the water-mark, and the coal seams are in a good state and dipping in that direction. The bottom of the coal basin has not been reached, and it may be concluded that there is an enormous area of coal under the North Sea.

The returns of the selling price of Northumberland coal for June, July, and August show that the net average selling price for that period was 5s. 2½d. per ton, there being an increase of 6d. upon the standard average selling price of 4s. 8d. per ton, fixed in the agreement of March 9, 1883. The present rate of wages will, therefore, be increased by 1d. per cent.

The Iron Trade has been steady and firm in tone during the week. The shipments have been large, about 90,000 tons for the month, 18,000 tons in excess of the previous month. Makers hold very firmly to 37s. for No. 3 pig-iron. Few purchases forward are, however, being made. Warrants are 36s. 3d. There is no improvement in the finished iron trade, and none can be expected until the shipbuilding trade revives. There is no change in the value of any kind of iron or steel, but steelmakers are now extending their operations, and making billets, rolled railway sleepers, sheets for tin-plates, &c. Dr. R. S. Watson, of Newcastle-on-Tyne, has accepted the post of arbitrator in the iron trade dispute, which has given much satisfaction.

There is still abundance of work for a large number of men at the great Elswick Works of the Armstrong-Mitchell Company, and the prospect of the employment of a greatly increased number when the new steelworks will be commenced; and it is expected that a commencement will be made shortly in the building of war vessels. At present nearly 5000 hands are employed. The famous cruiser Esmeralda was built by this company at Walker. She left the Tyne on Sept. 3, and arrived at Monte Video on Monday. The speed and other good qualities are highly appreciated.

The collapse of the iron shipbuilding trade on both rivers has thrown a very large number of men out of employment, and there is much distress and absolute want in consequence at Sunderland, and also at some points on the Tyne. Subscriptions have been commenced for relieving the distressed families. On the whole there are some symptoms of improved trade here. The value of the shares in some of the great iron and steel companies has increased, and the traffic receipts of the North Eastern Railway Company have also improved, which is considered a good index of the state of trade in this district. A fair amount of work has also been received at the Jarrow Iron and Shipbuilding Works, and more men have been employed there lately in the marine engine-works and other departments. The Howden Works have been closed some time, owing to the depression in the shipbuilding trade, but it is expected that these works will be reopened again shortly.

TRADE IN SOUTH WALES.

Oct. 9.—The Steam Coal Trade maintains its buoyancy, and there is some of the old pressure manifesting itself at Cardiff. House coal with the colder weather is improving in demand, and for the patent fuel trade remains good. In small steam coal there is little doing. The amount sent away from Cardiff last week was 117,017 tons foreign, and about 20,000 coastwise, with 4858 tons patent fuel: Newport, 33,361 tons foreign, and 20,423 coastwise; Swansea, 16,585 tons foreign, and about 14,000 coastwise, with 2000 tons patent fuel.

A seam of coal, 3 ft. 6 in. thick, was struck at Maesycwmmer last week. The area of this bed is about 30 acres.

Last Monday the first sod of a new colliery undertaking was cut on the Gellyhir estate, at Nelson, about two miles from the Ystrad Mynach Junction of the Rhymney Railway. The taking consists of 600 acres of the famous Mynyddislyn house coal. The mineral rights belong to Lord Windsor, Mr. Thomas, of the Heath, and others. The output is expected to yield 10,000 tons per acre, or 6,000,000 tons in all.

There is some slight movement in the Iron and Steel Trades, but it is a mere passing gleam. The amount sent away last week from Newport was 2873 tons, while Cardiff sent away 1856. The arrivals of iron ore were—Cardiff, 5784 tons from Bilbao, and 102 from other places; Newport received 7210 tons from Bilbao, and 1450 from other places.

Mr. David Evans has been reinstated as manager of the Rhymney Ironworks.

The Tin-Plate Trade remains fairly active, with low prices. 1C cokes fetch from 14s. 9d. to 15s.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

Oct. 9.—Among the list of defunct companies given in the Journal last week there is not a large proportion from this district, but still quite enough. There are five slate quarries, two iron mines, one chemical works, 17 lead mines, and two gas and water companies. Of the slate quarries, three appear to have failed from inherent defects in the rock itself, and two from outside causes. Hematite iron mining does not seem to have hitherto succeeded in the Principality. The land carriage is usually too high for not very rich ore. Of the lead mines, some are still intrinsically good. Some are misnamed silver-lead, because, from the formation in which they are placed, it should have been known that the highest percentage of silver is about 7 ozs. to the ton. The one chemical works has been resuscitated under another name, and some of the lead mines have passed through more than one change of name since they were registered under the name now given.

With so many sales of lead mines and mining plant announced, it would appear as if this industry were passing away from us altogether. Still, an advance in price of 2s. a ton would vivify the trade once more. Is this ever likely to take place? The committee for the relief of the Shropshire lead miners is wisely expending its funds in the payment of the railway fares and expenses of the men to other centres of work. This is better than keeping them in idleness and semi-starvation at home. In the controversy on this subject which has been going on, the "lord" certainly comes off second best. Still, it is a pity that the great company which first stopped should have allowed the men's wages to fall in arrear!

The returns of the Cambrian Railway show a net increase from the commencement of the half-year of 2741, notwithstanding a decrease in the receipts the week before last of 2861. The Manchester City Council have decided to make a grant of 18,000l., equal 1s. 2d. in 17, towards the preliminary expenses of the new ship canal scheme. The solicitor to the London and North-Western Railway has demanded a poll on the question. The Warrington people are equally in earnest, and have decided upon a grant proportionately as good as that of Manchester. Meanwhile a scheme, which seems intended to obviate the necessity for making a ship canal is proposed, which consists in straightening and deepening the Mersey and improving the navigation of the Bridgewater Canal. This will hardly satisfy the people intended to be benefited.

Nearly the whole of the collieries are in full work, and the men are working steadily, except at the Llwyd Hall, the Buckley, and the Mostyn Collieries. A better demand exists for coal for house use, for steam shipping, and for smelting and manufacturing purposes, and there is every prospect of activity in the Coal Trade for some to come. At the Bagillt Colliery on Thursday last three men, named Lewis, Pritchard, and Price, working during the night repairing the roof in the Five-foot seam, were seriously injured by a fall of roof which broke a lamp, thus causing an alarming explosion. Price is not expected to live, but the other two men are recovering.

The Iron Trade is in a better condition than it has been for some time past, and considerable expectations are based on the early completion of the new steelworks near Wrexham.

From Jan. 1 to Sept. 20 only 55,745 packages were sent from the potteries to American ports as compared with 85,745 shipped during the same period last year. There was, however, a considerable improvement in the trade during the last month, 1797 packages being sent to the United States, against 1842 in September, 1883. There is still great need for improvement, for while a few of the large manufacturers having specialties are well employed, the bulk of the works are only working about half time. While on this subject I may add that Professor Church is collecting materials for a handbook of English pottery. Mr. Gladstone is to cut the first sod of the Wirral

Railway next week. This line will complete the connection between the centre of Liverpool by means of the Mersey Tunnel and the proposed bridge over the River Dee with the North Wales coal fields. A subsidence of land took place in Church-street, Liverpool, last week over the extension of the tunnel from the river to the Central Station, which caused some temporary inconvenience. The slate limestone sett and building stone trades, with the clay and lime works, are all in a fairly satisfactory condition.

QUICKSILVER.

1883.	
Imports from Jan. 1 to Sept. 30, bottles, about 53,442	1883.
Exports	" 35,509
Imports for September	" 550
Exports	" 3,243
Price per bottle, about	" 5 7 6
Stock in London to Sept. 30, 1884, roughly calculated,	25 12
86,000 bottles.—London, Oct. 9.	J. BENNETT BROTHERS.

WATSON BROTHERS MINING CIRCULAR.

WATSON BROTHERS,

MINEOWNERS, STOCK AND SHARE DEALERS, 1, ST MICHAEL'S ALLEY, CORNHILL, LONDON.

We may remark that we do not enter into the domain of politics in this Circular, though we have often wished that the action of certain lords in regard to mine leases and dues could be brought before Parliament, and thus made as public as the grievances (not half so bad) of the agriculturists have been. Further than saying this we do not see how we can assist the "Wheat Jane Shareholder," who thinks the action of these lords in regard to mine leases might have some influence if public meetings were held and authenticated cases brought forward in strengthening other charges against the Peers. All lords of mines are not Peers. We know nothing of Wheat Jane beyond what we read in the papers and derive from our correspondents, and it certainly seems hard that after such an outlay and heavy loss the simple concession asked for could not have been granted by Lord Falmouth's agents. If this sort of thing goes on half the old mines in Cornwall will stop. In fact, what with lords and merchants, poor secretaries and managers of mines have a hard time of it just now. Merchants of all kinds are eager enough to get orders for supplies from agents of mines, send in things at their own prices, and then threaten all sorts of proceedings if not paid their demands at once. Thus, shareholders are worried for their calls, and get out of mines, and if mining is to go on and proper lords, merchants, and others must be a little more considerate, and in accordance with the times.

Prince of Wales is so called because the mine is held direct from His Royal Highness, and is one of the largest grants, as we hope one day to see it one of the best mines, in Cornwall.

The tin ore at West Frances yields 120 lbs. of tin to the ton; that of Dolcoath and East Pool about 90 lbs. The shaft will be complete at West Frances in about eight months, when very large returns will be made, and shares go very high. This we have said before.

It is interesting, in these depressed times, to see three lead mines pay dividends—Great Laxey, Roman Gravels, and Leadhills.

The lode at New Caradon is getting away from the cross-course, and is now 3 ft. wide, and producing some rich stones of yellow copper ore.

The lode in the 102 east, at Prince of Wales, continues worth 25 ft. per fathom.

Parrys Mine was never "abandoned," in the ordinary, or in any other sense of the word. Neither is it the fact that this firm or the old one ever "undertook the working of it" under the circumstances named, or under any other. Nor did the late Mr. John Taylor, that we are aware of, ever "castigate" us either in print or anywhere else, for what we wrote respecting the mine in the *Mining Journal*.

Now for the facts as we learnt them at the time and have never heard contradicted. Messrs. Taylor applied for a reduction of royalty, which was refused; they then, under a clause in the lease, gave notice of surrender, thinking this would bring the reduction required. The lords still refused and took the "surrender." New leases were then obtained by some Manchester gentlemen, and these were offered in London, among others, to two of the directors and largest shareholders in Van, then in its great prosperity; two of these directors visited the mine with others, and from what they saw and heard from practical agents who had inspected the property they became so impressed with its great value, that not only did they give a large sum in shares and cash for the leases, but paid Messrs. Taylor upwards of 10,000l. for valuation of plant, machinery, &c., and also subscribed the whole working capital without asking the public for a single penny. The concern was in 12,000 shares only, of 3l. each. Mr. Watson was asked to join the direction, and paid 600l., for 200 shares at 3l. each for the privilege. These shares, or their equivalent, in the new company he still holds, and the "firm" are still the largest shareholders in the company.

Now let us see what the mine, which, under some strange misapprehension of last week, was so strangely referred to, and was also stated to have been given up by Mr. Taylor "as worked out and worthless" has since done. The Parrys Company sold the "blue-stone" part for 5000l. to Morfa Du, and they have raised and sold copper and other ores to the value of 79,391l., and paid 5000l. royalty to the lords! When the mine was taken over it made a profit the first month; but as copper dropped, and the price of ore fell 2l. per ton at least, it was found impossible to meet the costs, the ores being of a low percentage. But the grand speculation of the company (which had been commenced by Messrs. Taylor), and which created unusual interest in Wales and elsewhere, was to drive a level (the 90 south) under the great open-cast, from which upwards of 5,000,000l. sterling had been realised. All trials to sink to any depth below the bottom of the open-cast had failed, for the water eat up all the pumps—just as it now eats up old iron in pits, and yields about 1000l. a-year in copper precipitate. This great experiment of the new company occupied some years, and cost many thousands of pounds. It did not meet with the success anticipated, but it opened up some good lodes; and a short time ago it was estimated that the ores discovered in the mine, chiefly in the Carrig-y-dol lode, were worth over 30,000l., but of too low a percentage to raise and sell at a profit as ores. The company have also about 20,000 tons of native ochre discovered, and this sells, when worked, at about 2s. per ton, and gives a good profit.

During the last seven or eight months, therefore, negotiations have been going on with the lords for a new lease, with a view to amalgamate with the Mona Mining and Smelting Company, and by a combination of the three mines of Mona, Parrys, and Morfa Du it has been estimated that by smelting the poorer ores, and utilising all the various products, including bluestone, for which there is a demand, a large annual profit may be made. It is singular, too, that on the very day we read the remarks we have been referring to the approved draft agreement with the lords was also handed to us to read. We hope therefore, it will not be long before the grand old mines, which never ought to

DEFUNCT AND DYING PUBLIC COMPANIES.
FROM THE LONDON GAZETTE, SEPT. 30.

The Registrar of Joint-Stock Companies has given notice, pursuant to s. 7 (4) of 43 Vict., ch. 19 (Companies Act, 1880), that the names of the undermentioned companies have been this day (Sept. 30) struck off the register, and that such companies are hereby dissolved:—

(Note.—An asterisk prefixed to a name signifies that another company with the same or similar title is believed to be carrying on business at the present time.)

McCoy Hill Silver Mining, McKenzie Patent Gas Coal, MacMillan's Patent Clinch Button, Maesycwne Gas, Malaga Lead, Manchester Aquarium, Manchester Mercantile, Manchester Orange Hall, Manchester Suburban Tramways, Mariners' Finance Bank, Marshbrook Spinning, Marylebone Mercury, Medway Gault, Brick, and Cement, Menziesberg Mining, Mercantile Financial, Mercantile Union Bank, Merioneth Consols Mining, Merioneth Mining, *Mersey Lighterage, Metropolitan and Provincial Co-operative, Metropolitan and Suburban Land, Metropolitan Patent Starch, Metropolitan Press, Metropolitan Theatres, Middlesbrough Wrought Nail, Mid-Moonta Copper Mining, Mignot's Ice and Refrigerating Machine, Millom and Holborn Hill Gas, Minas Geraes Gold, Mineral Colours Manufacturing, Mineral Estates, Mineral Phosphates Refining, Mines Syndicate, Mold Green Gas, Mole's Patent Boot, Molina Copper, Montague and Waverley Gold Quartz Crushing, Morfa Iron Ore, Mortgage Insurance, Mountain Chief Mining of Utah, Mount Dalby Silver-Lead Mining, Mutual Coal.

Nailstone Colliery, Nantwich Tannery, Nant-y-Ricket Copper and Lead Mining, National Agency, National Swimming Baths, National Tontine, Neigherry Planting and Fibre, Netherby Steam Cultivation, New Atlanta Silver Mining, New Atlantic Telegraph, Newfoundland Mining, New Gas Generator, New Injebreck Silver-Lead Mining, Newport (Oregon) Coal, New Tannery of England, New Van Mining, New Zealand Investment, New Zealand Land and Coal (registered June 19, 1872), New Zealand Real Property and Gold Mining Investment, North American Neuchatel Rock Paving, North American Trust and Agency, North Atlantic Cable, Northern Titanic Iron Ore and Smelting, North Lonsdale Printing and Publishing, North Lonsdale Steamship, North of England Newspaper and General Printing, North of Ireland Iron Ore, North Pacific (Koskemo Sound, Vancouver Island) Coal and Land, North Wales Mineral Phosphate, Norway Trading, *Nottingham Tramways.

Official Executorship, Old Brentford Brewery, Oldham Shoeing Forge, Old Silkstone Colliery, Oporto, Charente, and Cadiz Pure Wine and Spirit, Ordnance Gun Cotton, Oriental Ice, Otley Steam Flour Mill, Ottoman National Brick and Pottery, Overseal Colliery, Overton and Bangor Gas, Coke, Coal, and Lime.

Paris and Vienna Bread, Patent Bread Making Machine, Patent British Asphalt, Patent Building Materials, Patent Concentrated Animal Manure, Patent Cork, Patent Gunpowder, Patent Lignous Fibre, Patent Marine Inventions, Patent Victoria Stone, Patent Waterproof and Washable Paper Hanging, Patent Water Repellent, Paterson Barber and Co., Paul Toepler and Co., Pav's Patent Felted Fabric, Penmoye Sea Green Slate, Pen-y-Henblas Lead Mining, Penyfodog Iron Mining, Peterborough and Huntingdonshire Standard, &c., Philippine and Laura Mining, Phoenix Quicksilver Mining, Picture, Pistill Rhaiadr Slab and Slate Quarries, Pittsburg Gold Mining, Plastic Wood, Plym Head China-Clay and Mica Works, Free Gas and Coke, *Press Club, Property Improvement, Black and White, Provincial Rent Guarantee, Prudhoe District Gas, Publishing Quebec Iron.

Radcliffe and Pilkington Public Hall, Railway Works, Reading Co-operative Clothing, Reafadda Mining, Remy's Pianoforte and Organ, Renishaw Silver Mining, Richardson's Improved Patent Pneumatic Loom, Riddell's Paper Patents, Riverdale Steamship, Robert Booth and Co., Rochdale Times and General Printing, Roman Public Works, Rowley Head Mining, Royal Forester Colliery, Rugby Portland Cement, Russell's Patent Filter, Russian China Tea, Russian Copper, Russian Neuchatel Rock Paving, Ryhope Gas.

St. George's Loan and Advance, St. James' Library, St. Lawrence, Victoria, and Valentine Amalgamated Mining, San Pedro and Agra Land Grants, Sawdust Powder, Scarborough Sub-Tramway, Aquarium, and Improvement, Schenouah Marble, Scientific Dress-cutting, Scunthorpe, Iron, Self-Registering Omnibus, Sergipe (Brazil) Sugar Refinery, Serrinha Tin, Seville, Huelva, and Rio Tinto Railway, Sewage Gano, Seyssel-Volant-Perrette Mine, *Silver Hill Consols Mining, Silver Plume Mining, Silver Star Mining, Smyrna Vineyards and Brandy Distillery, Snowdrift Silver Mining and Reduction, Société Générale Des Engrails de Paris, South African Diamond Fields, South African Gold Fields, South African Silver and Copper Mining, South Brazilian Railway, South Cleveland Ironworks, Southern and Western Fire Insurance, Southern India, South Lancashire Land, South London Cemetery, South Shropshire Railway, South Staffordshire Ironworks, South Utah Mining, South Wales Peat and Peat Charcoal, South Yorkshire Recreation and Amusement Grounds, Sovereign Gold and Silver Mining of California, Spalding and South Lincolnshire Mutual Plate Glass Insurance, Spanish Zinc, Staffordshire Galvanizing and Corrugated Iron, Stamford Terra Cotta (Blashfield's), *Star and Garter (Richmond) Limited. This company is not the same as the Star and Garter, Limited, still carrying on business at Richmond). Star Omnibus and Postage, Staveley Lead Mining, Steam Fuel and Fire Light, Stenik, Suffolk Masonic Hall, Sunside and Merryfield Lead Mining, Surrey Masonic Hall, Swansea Bituminous Colliery and Fire-Clay.

Talgarth Gas, Taliesin Mining, Tanner's Cigar Machine, Temperance Laundry, Thamer Ship Building, Graving Docks, and Ironworks, Thistle Newspaper, Tolyabe Silver Mining, Tontine Loan Fund, Torquay Marine Aquarium, Totland Bay Land and Building, Tours, Nantes, and Paimboeuf Railway, Tramway Car and Works, Transvaal Coal, Trans-Pacific Steam Navigation, Transvaal, Trinidad Asphalt, Bitumen, and Oil, Trébōs Hotel and Sanitarium, Truro Lead Mining, Tiverton Colliery, Twickenham Gas Light and Coke, Tyzack's Patent Worm-Windlass Engineering.

Undercliffe (Isle of Wight) Hotel, United British Asphalt, United Wine Growers of Hungary, Utah Silver Mining.

Vachmen Silver-Lead Mining, Valparaiso Waterworks (registered Aug. 21, 1871), Volberg Mining, Volunteer Chronicle and Reserve Forces Gazette Newspaper.

Walsall Arboretum and Lake, Warwickshire Portland Cement, Wærde and St. Germans Amalgamated Stone Quarries, Wear Engine Works, Weekly Tenements Investment, Welsh Ironworks, Wensleydale Iron, West Allt-y-Crib Silver-Lead Mining, West End Co-operative, West End Supply, West Indian Produce Manufacturing, West Llanyngog Silver-Lead Mine, West Milwr Silver-Lead Mining, West Swansea Colliery, Wholesale Unadulterated Wine, Wigan Alkali, Wigan Omnibus, William Sulley and Co., Willman's Island Phosphate, Wiltshire Bacon Curing, Winamuck Silver Mining of Utah, Winter Season Italian Opera, Wisconsin Mercantile, Withy and Co., Woodley Silver-Lead Mining, Yorkshire Literary Union.

From Mr. JOHN B. REYNOLDS:—Although a good, quiet *bona fide* business has been going forward, the markets have presented no favourable features during the week. The condition has been correctly described as stagnant, and old experienced speculators smile—and that very naturally, too—at the uneasiness exhibited by the young adventurers who ought never to have dealt in stocks and shares at all.

A large class of the community are only fit for "something very certain." A stated salary at so much per annum is the best for them. Whenever they go for more, they make a venture over which they lose their sense when events go against them. It is certainly and very seriously passing strange that there are so many who will not or cannot learn anything. In times like these people should study the past history of the markets, and never act in haste. Fortunes are made and lost by acting in seasons of severe depression like this—most certainly lost by the sellers, and as certainly made by the buyers. Judging from the past, it must be conceded that there are now many first-class speculative securities which are perfectly safe to buy. It is not honest to work upon the fears of the holders of such securities in times like these. They should rather be induced to take a 12 months' holiday, and when they returned how different would they find quotations and dividends, and everything. The reason why we take such a cheerful view is that there can be no reasonable doubt as to the cause of this depression being purely temporary. It cannot be denied indeed that causes of depression are always temporary. As to tin, copper, and iron we must lessen the cost of production, and seek out richer deposits. Miners must look a little further ahead, and not be in such a hurry to take away all the ore ground they

meet with. This is the way to get ready for higher prices and better trade. If we do this we shall, in the not far future, be very thankful for the present pinch. Of course there are professional alarmists. It is their business to try and make all believe that never again shall we be able to command prosperity. These gentlemen are our old friends the "bears," who just now are having a good time of it. But, unfortunately for their reputation, they have always been false prophets, and the less *bona fide* investors have to do with them the better. But what do we now hear of these speculators for the fall? Is it that they are anxiously closing their accounts? No doubt there is some truth in the rumours which are afloat, and we can only congratulate them on their foresight. They have managed to cause a sharp fall in quotations, but whether the fall has not been so sharp as to cause a sudden and to many an unwelcome rebound remains to be seen. It is noteworthy that certain mining shares have improved even in the face of events we have touched upon; but the reason is easily found in the exceptional prospects of the undertakings. Mining in Cornwall will receive a new impulse in consequence of the success of a district now in its infancy, but being rendered famous for the extraordinary richness of its deposits and remarkably low cost of production. This district has made exceedingly large profits with metals much lower than at present, and can do so again, as will be conclusively proved at the meetings of certain mines to be held next month. Probably the next mine in this district to enter the Dividend List will be Trevaunance, and the next Polperro.

COPPER.—MESSRS. RICKARDS and BEE (Oct. 9) write:—Copper remains very steady, and it is probable we have practically reached the bottom as regards price. Figures, showing extraordinary consumption and decreasing stocks would seem to justify a much higher range of values than those now ruling. Uncertainty as regards the American production, and the total collapse of speculation, are probably the reasons which prevent a considerable advance. With reference to the former of these causes, it is authoritatively stated in some quarters that American production has already fallen off, and at present rates must fall off to a still greater extent. If this be so, the prospects of copper should be very satisfactory to holders.

THE COAL TRADE.

MR. J. B. SCOTT, the Registrar of the London Coal Market, has published the following statistics of imports and exports of coals into and from the port and district of London by sea, railway, and canal during September, 1884:—

By Sea.	Ships.	Tons.	By Railway and Canal.	Tons. cwt.
Newcastle	211	197,631	London, & N.-Western	133,271 11
Sunderland	91	71,010	Great Northern	113,189 0
Seaham	38	22,803	Great Western	71,187 0
Hartlepool	38	16,729	Midland	198,560 0
Middlesbrough	7	3,339	Great Eastern	64,998 8
Welsh	42	40,518	South-Western	7,160 19
Yorkshire	26	6,226	South-Eastern	1,956 18
small coal, cinders	18	11,833	Grand Junction Canal	855 5
Colonial	1	151		
Total	472	369,940	Total	591,179 1
Imports—Sept. 1883	381	308,168	Imports—Sept. 1883	602,532 10

Comparative Statement, 1883 and 1884.

By Sea.	Ships.	Tons.	By Railway and Canal.	Tons. cwt.
Jan. 1 to Sept. 30, 1884.	3885	2,992,999	Jan. 1 to Sept. 30, 1883	5,119,012 5
Jan. 1 to Sept. 30, 1883.	365	2,833,693	Jan. 1 to Sept. 30, 1884	4,571,242 9

Increase—1884 270 159,306 Decrease—1884 147,769 16

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Increase—1884 270 159,306 Decrease—1884 147,769 16

Comparative Statement, 1883 and 1884.

Total distribution of coal from Jan. 1 to Sept. 30, 1884 2,188,799

Total distribution of coal from Jan. 1 to Sept. 30, 1883 2,094,580

Increase in the present year 94,219

General Statement, 1883 and 1884.

Increase in coals exported during present year 94,219

Deduct } Increase in coals imported (sea-borne) 159,306

Less decrease in coals imported (railway and canal) 147,769= 11,537

Total decrease in trade within the London district during present year 82,682

SPANISH IRON ORE SHIPMENTS.

Messrs. T. and E. S. BELL, of Bilbao, favour us with the following statement of the total amount of ore shipped from that port from Jan. 1 to Sept. 30, 1884:—

Wales	Cardiff	Tons.	Tons.
	392,384		
Newport	280,921		
Port Talbot	8,541		
Swansea	62,606		
Britonferry	7,623		
Porthcawl	12,999		
Mostyn	777=		765,851
Cleveland District	168,873		
Newcastle	187,604		
Middlesbrough	38,526		
Stockton	25,434		
Sunderland	22,608=		443,045
Glasgow	243,032		
Grangemouth	10,110		
Ardrossan	17,180		
Boness	7,537		
Ayr	3,115=		280,974
Cumberland and } Workington	2,991		
Lancashire	1,319=		4,310
Garston	2,422		
Other parts of England			
Total shipped to Great Britain		1,496,602	
Belgium	35,718		
Antwerp	75,875=		111,593
France	108,898		
Dunkerque			
Bayonne	50,182		
Boulogne	59,036		
La Rochelle	39,925		
Bordeaux	4,074		
St. Nazaire	49,542		
Basse Indre	214		
Hennebont	1,084=		312,955
Holland	367,821		
Amsterdam	57,702=		425,523
America	1,672		
Corsica	2,629		
Total shipped to other countries		854,372	
" "	Great Britain	1,496,602	
Total shipped from Bilbao		2,350,974	
Total shipped from Jan. 1, 1883, to Sept. 30, 1883		2,604,665	
Decrease, 1883		253,591 tons.	

Bilbao, Oct. 7.—There is nothing new to report in the iron ore market here. Business is stagnant, and stocks are very large.

Though prices are so low very few steamers arrive. There is some talk of taking off the quarantine, which may induce more tonnage to come. Prices are nominal.

NEW WEST CARADON.—The branch of ore discovered on Menadode last week is holding good, and is of the same value as last reported.

A similar branch on this

**DYNAMITE (ELECTRIC) EXPLORERS
AND
ELECTRIC MINE BELLS.**

"The Telegraph Bells and Indicators you fitted for us in 1871 are still going admirably. It is, indeed, the soundest work we have yet seen, and the trifling cost of maintenance leaves no doubt that for all Mining and Commercial purposes the Electric system holds a decided advantage over all others for efficiency and durability."

LARGE BELL, PUSH, 50 YARDS INSULATED WIRE, and BATTERY complete on receipt of 25s. Suitable for easily communicating between distances.

Architects, Builders, Mining Engineers, Gas Fitters, and others desirous of using Electric Bells can be supplied with all the necessary stores and instructions for fitting. Estimates given for supplying and fitting Electric Bells, Lightning Conductors, Fire Telegraphs, Speaking Tubes, &c., on application. Vulcanised India-rubber and Canvas Hose, Special Tubing for Acids, Gas, and Chemicals, India-rubber Mats, Valves, Washers, Sheet, Rings, &c. Gutta Percha and Ebonite goods. Signals for Shafts, &c.

The Trade and Shippers supplied. Catalogue on application. **PATENT ELECTRIC GAS LIGHTER**, 21s., carriage paid. Our new **PATENT ELECTRIC GAS LIGHTER**, having no battery, is practically inexhaustible.

ELECTRIC LAMPS for TABLE or OFFICE use.

FRANCIS AND CO.,
EAGLE TELEGRAPH WORKS, HATTON GARDEN, E.C.

MINING TELEGRAPHS ERECTED.

**QUICKSILVER-WAVE
AMALGAMATOR COMPANY, LIMITED.
(MOON'S PATENT.)**

Private individuals or companies having ores or auriferous tailings are invited to send samples, in bulk, to be tested; and the company undertake that the results obtained by them will be, at least, equalled, in regular working.

The company has published a new Pamphlet, with sketch of Amalgamator, and full particulars; and now offer for subscription a limited number of shares of £10 each.

Copies of Pamphlet and of Prospectus to be had on application at the company's offices.

27, THROGMORTON STREET, BANK, E.C.
WORKS—17, WHARF ROAD, CITY ROAD.

STANDARD ORE CRUSHER—UNIVERSAL PULVERISER.
FOR SALE, THE STANDARD ORE CRUSHER, 12 x 6, with Elastic Steel Connecting Rod.

Also, ONE 20 inch UNIVERSAL PULVERISER. Will reduce to powder any refractory material, wet or dry. Tin Ores, Quartz, &c. Apply,—

C. E. HALL, STANDARD IRONWORKS, SHEFFIELD.

IMPORTANT TO MINE OWNERS.

FOR SALE, a PLANT of ROCK-DRILLING MACHINERY, quite new, comprising—

ONE AIR-COMPRESSING ENGINE, with 12 inch cylinders, 3 and 3½ in. rock drills, stretcher bars, &c., &c. Our Machines have been driving levels in hard rock 3 to 4 fathoms per week forward. Contracts undertaken.

Address,—WARSOP AND HILL, NOTTINGHAM.

PIT SINKING, WINDING COAL, PUMPING, &c.

PORTABLE STEAM ENGINE FOR SALE, 25-horse power, with or without link motion reversing gear; a 14-horse power Ditto, also gear to wind and pump.

A 9 h. p. VERTICAL STEAM ENGINE, with link motion reversing gear (winding drum if required).

A 6 ft. pan MORTAR MILL, VERTICAL ENGINE, and BOILER combined, on carriage and travelling wheels.

Apply to—

BARROWS AND STEWART, ENGINEERS, BANBURY.

TO MINING COMPANIES AND OTHERS:

FOR SALE, CHEAP, a quantity of NEW and PERFECT IRON RAILS, 16 lbs. and 20 lbs. per yard, ex Stock, in lots of 10 tons and upwards, on trucks at works in Wales.

Apply to JOHN H. AUSTIN and Co., 90, Cannon-street, London.

NORWEGIAN ORES.—CHROME ORE, PYRITES, COPPER ORE, IRON ORE, COBALT, and NICKEL ORE, &c., FOR SALE.

Apply to Mr. H. T. HORNEMAN, Mining Engineer, Thronhjem, Norway.

MICHELL AND TREGONING'S PATENT PULVERISER.

F. BARTLE AND CO., of BASSET FOUNDRY, CARN BREA, have much pleasure in announcing that they have become the PURCHASERS of an UNDIVIDED MOIETY of the ABOVE PATENT; and are, therefore, in a position to SUPPLY this FIRST-CLASS PULVERISER direct from their own Works at the shortest notice, and of guaranteed workmanship.

This Pulveriser has won several Medals, and has an unrivalled and increasing reputation for durability, cheapness, and dispatch.

Further particulars on application.

All descriptions of Mining Machinery for home and foreign parts Faggotting, Smithery, and Fitting in all its Branches.

A USTRALASIAN GOLD, TIN, COPPER, COAL, ANTIMONY, and other MINES REPORTED ON for public companies or private shareholders by

WILLIAM NICHOLAS, F.G.S., Lecturer on Mining, University, Melbourne, Consulting Mining Engineer, Exchange, Melbourne, Victoria, Australia.

M I N E " E L U A L L A O," GUAYANA, VENEZUELA.

32,200 SHARES.

Gold in bars produced in the month of August, 1884, and remitted to Messrs. Baring Brothers and Co., London—15,594 12 ozs.

DIVIDEND distributed per Share, 28 francs.

(Signed) A. LICCHIONI, President.

(Signed) VICTOR J. GRILLET, Treasurer.

THE CANADA PACIFIC IRON AND STEEL RAIL COMPANY.

The Subscriber is desirous of opening communication with some party in England for the purpose of organising the above company.

One thousand acres of red hematite ore not far from the line of the C.P.R.

Address, HUBERT C. JONES, Solicitor, Brockville, Ontario, Canada.

ALEXANDER SMITH, M. Inst. C. E., CONSULTING ENGINEER and VALUER of IRONWORKS, MINING, RAILWAY, ENGINEERING, and other PROPERTY, PLANT, and MACHINERY, PRIORY STREET, DUDLEY

AND

4, BURLINGTON CHAMBERS, NEW STREET, BIRMINGHAM.

Mr. SMITH has been retained for nearly 20 years by some of the most prominent firms, and has conducted many of the largest valuations that have taken place in the kingdom.

Valuations for Stock Taking or any other purpose upon very reasonable terms.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL JEWELL MINING COMPANY. Notice is hereby given, that ALL CREDITORS of the ABOVE-NAMED COMPANY are required, on or before the 15th day of October instant, to SEND IN their NAMES and ADDRESSES, and the AMOUNTS and PARTICULARS of their SEVERAL CLAIMS on the said company, to FREDERICK MARSHALL, Esq., the Registrar of the said Court, at his office in Truro, within the said Stannaries.

FREDERICK MARSHALL, Registrar.

Dated Registrar's Office, Truro, this 9th day of October, 1884.

In the High Court of Justice.
PROBATE, DIVORCE, AND ADMIRALTY DIVISION.
(DIVORCE.)

To JOHN PENBERTHY, late of 23, Selby-road, Anerley, in the County of Surrey.

TAKE NOTICE, that a Citation bearing date the 21st day of August, 1884, has issued at the instance of ANITA PENBERTHY, of Cheltenham, in the County of Gloucester, citing you to appear within eight days after publication hereof, and to answer the Petition filed by the said ANITA PENBERTHY, praying for a DISSOLUTION of HER MARRIAGE with you, the said JOHN PENBERTHY, and such Citation contains an intimation that, in default of your so doing, the Court will proceed to hear the said Petition proved in due course of law, and to pronounce sentence thereon, your absence notwithstanding, and a further intimation that for the purpose aforesaid, you are to stand in person, or by your Solicitor, at the Divorce Registry, at Somerset House, Strand, in the County of Middlesex, and there to enter an appearance in a book provided for that purpose, without which you will not be allowed to address the Court in person, or by Counsel, at any stage of the proceedings in the Cause.

EDWARD F. JENNE, Registrar.

BOLTON, ROBBINS, BUSK, and CO., 46, Lincoln's Inn-fields, in the County of Middlesex, Solicitors for the Petitioner.

1875—M. 100.

In the High Court of Justice—Chancery Division.
Mr. JUSTICE CHITTY.

GLAMORGANSHIRE.

IMPORTANT SALE OF FREEHOLD SURFACE AND MINERAL PROPERTY.

THE MERS ESTATE, in the parishes of Cadown-Juxta-Neath and Llangwile, otherwise Llangwile, consisting of the manors of Killybegill and Neath Ultra, and Caegurwen, together with about 8265A. 0B. 37P. of arable, pasture, and common land, several rich veins of the coal and other minerals for which the South Wales coal field is celebrated, with valuable collieries in active operation, and connected with the Midland and Great Western Railway systems. The surface is divided into farms of convenient extent, with suitable buildings, some of which are situate at the top of the Vale of Neath, far-famed for its beautiful scenery, TO BE SOLD BY AUCTION.

MESSRS. STEPHENSON AND ALEXANDER, the Auctioneers appointed with the approbation of Mr. JUSTICE CHITTY, the Judge to whom Court this cause is attached, at the Angel Hotel, Cardiff, on TUESDAY, the 14th October next, at Two P.M.

Further particulars may be obtained from Messrs. TALBOT and TASKER, solicitors, 47, Bedford-row, London; Messrs. GRIFFITH and CORBETT, solicitors, Cardiff; Messrs. TOWE, JANEKIN, and CO., solicitors, 38, Bedford-row, London; Messrs. UPTON, ATKIN, and UPTON, solicitors, 14, Austin Friars, London, E.C.; Messrs. PRITCHARD, ENGLEFIELD, and CO., solicitors, Painters' Hall, Little Trinity-lane, London, E.C.; Mr. J. O. JONES, Mining Engineer, 34, Wine-street, Swansea; Mr. JAMES KEMPTHORNE, solicitor, Neath; Mr. D. REES, Cardiff-street, Aberdare; of the Auctioneers, at Cardiff; and at the place of sale.

In the High Court of Justice.

IN LIQUIDATION.

ABERDUNA LEAD MINES (LIMITED).

THE LIQUIDATOR is prepared to RECEIVE TENDERS for the PURCHASE of the MINING RIGHTS, extending over about 150 acres, situated in the parish of Llanferres, in the county of Denbigh, close to good roads, and within easy access to Mold Station on the London and North-Western Railway, together with the

MACHINERY, PLANT, TOOLS, AND EFFECTS.

The mine is thoroughly equipped. Engine-shaft sunk to 125 yards. Best discovery of lead made at last level driven out from the shaft at the depth indicated.

Tenders will be received by Mr. WILLIAM THEOBALD, the Official Liquidator, on or before Twelve o'clock on Monday, the 27th October, 1884, at the office of Messrs. THEOBALD BROTHERS and MALL, F.C.A., 27, St. Swithin's-lane, London, E.C.

Applications for Orders of Inspection of the Mines and Forms of Tender may be had of H. CHANDLER, Esq., Solicitor, 66, Bishopsgate-street Within, E.C.; Mr. RUPERT PRINCE, at the Mines, Mold; or of the Liquidator, WILLIAM THEOBALD, Esq. (Theobald Brothers and Mall), Chartered Accountant, 23, St. Swithin's-lane, London, E.C.

TUESDAY, OCTOBER 21ST, 1884, NOON.

VERY VALUABLE MINE MACHINERY, PLANT, AND MATERIALS

FOR SALE,

AT NORTH PENSTRUTHAL MINE, in the parish of Gwennap, near Lanner, about one mile from Redruth, Cornwall.

MRS. W. T. DAVEY, Auctioneer, Redruth, has been favoured with instructions TO SELL, BY PUBLIC AUCTION, on TUESDAY, October 21st next, at Twelve o'clock, at the above Mine, the WHOLE of the FIRST-CLASS

MACHINERY, PLANT, AND MATERIALS

TERRENO, COMPRISING:—

ONE good 50 in. cylinder Cornish PUMPING ENGINE, equal beam, 15 ft. stroke, with first piece of main rod; two excellent Cornish boilers, with fittings, 12 tons and 10 tons respectively.

ONE 23 in. cylinder horizontal WINDING ENGINE, 6 ft. stroke (crank shaft and fly wheel, air pump and condenser), nearly new, by Harvey and Co., with extended bed plate, and 18 in. air compressor, cylinder 6 ft. stroke; one new 18 in. air cylinder, 6 ft. stroke, to replace present one, one 10 ton Cornish boiler and fittings.

ONE 31 in. cylinder STAMPING ENGINE, equal beam, 9 ft. stroke, with two excellent fly wheels, and one 10 ton Cornish boiler and fittings; two nearly new stamps (32 heads), with cams, braces, &c., complete; ten round bobbins, with driving gear, stands, stays, &c.; two excellent air receivers, about 3 tons; dry tube, &c., about 3 tons; about 300 fms. of 3 in. iron pipes, with faced flanges; one double power winch; one 4 ton boiler; three 3½ in. rock boring machine drills, three stretcher bars, with clamps; one 60 ft. shears, with sheaves; three balance bobs; shaft trolley, &c.; 160 fms. rods, 12 to 7 in.; 60 fms. superior flat rods, with travelling wheels, &c., complete; 270 fms. of pitwork of various sizes, from 7 to 12 in., including H and D door pieces and poles; 250 fms. 3 in. circular steel wire rope; 3½ fms. of 1½ in. iron bucket rods; 200 fms. iron staves; 100 fms. launders, various sizes; a quantity of staples and glands; forgott and hammered rod plates; chain; railroad iron; smith and miners' tools; new steel and iron; wood sheds; casing planks; useful timber and other materials in general use in mines; account house furniture and other effects.

The foregoing machinery, plant, and materials will be first offered in One Lot, and if not sold will immediately be put up in Lots to suit the convenience of purchasers.

The machinery and materials will be found in first-class working condition, and up to the stoppage of the mine the engines, boilers, &c., were maintained in thoroughly efficient working order.

The engines were regularly indicated by Messrs. Hocking and Son, and presented very good indicator diagrams.

REFRESHMENTS WILL BE PROVIDED.

To view, apply to the Agents on the Mine; and for further particulars to Mr. ASHMEAD, the Secretary, 2, Drapers' Gardens, London: or to the Auctioneer, 4, Station Hill, Redruth.—1st October, 1884.

TOWNSHIP OF GWYDYL, NEAR LLANRWST, NORTH WALES.

THE D'ERESBY MOUNTAIN MINING COMPANY (LIMITED).

IN LIQUIDATION.

MR. F. M. WHITTINGHAM WILL SELL, by order of the Liquidator, BY PUBLIC AUCTION, at the Guildhall Tavern, Gresham-street, London, on THURSDAY, the 18th day of October, 1884, at Two o'clock P.M. precisely, according to the conditions of sale to be produced at time and place of sale, the WHOLE of the

MACHINERY AND MATERIALS

Belonging to the D'Erresby Mountain Mining Company (Limited), together with the LEGAL and EQUITABLE INTEREST in the LEASE on which the mine belonging to this company is worked, AS A GOING CONCERN.

There will be included in the sale one 10 horse power semi-portable steam engine, with pumping and winding gear; winding drum; one 30 ft. diameter water wheel; one portable engine for drawing; one Cornish crusher; one Blake's stone breaker; two sets of stone-cracking jiggers; tram wagons; kilns; 70 fms. of 3 in. diameter steel wire rope; pumps; rods; and all other machinery and materials belonging to the company; including a variety of useful materials for the continued working of the mine.

Held under lease from the Baroness Willoughby D'Erresby, from Nov. 30, 1877, for 21 years, at an annual rent of £100 per annum, or a royalty of 1-12th on ore raised, and an additional charge of £5 for use of reservoir.

For further particulars apply to the Liquidator, Mr. EDWARD ASHMEAD, F.C.A., 2, Drapers' Gardens, London; Messrs. STACPOOLE and SON, Solicitors, 2, Finner's Hall, Old Broad-street, London; Capt. JOHN ROBERTS, Bryn Gwrlant, Treffry, North Wales; and of the Auctioneer, Mr. F. M. WHITTINGHAM, 6, Bishopsgate-street Within, London.

FOR SALE, at BRENDRON HILLS MINES:—

ONE 25 inch cylinder PUMPING and WINDING ENGINE, stroke 9 feet, with fly wheel, winding gear attached, with one

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NOBEL'S EXPLOSIVES COMPANY, LIMITED

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REDDING MOOR WORKS, POLMONT STATION, STIRLINGSHIRE.

TONITE, OR COTTON POWDER,

IS RECOMMENDED TO CONTRACTORS, MINERS, PIT SINKERS, QUARRYMEN, AND OTHERS, AS BEING

THE SAFEST, CHEAPEST, AND STRONGEST OF ALL EXPLOSIVES

TONITE is the most efficient and economical blasting agent ever invented, and is largely in demand. It does not contain any Nitro-glycerine, and is, therefore, exempt from the dangers of exudation, or of freezing and its attendant process of thawing.

The Company manufacture

PATENT DETONATORS

of a quality much superior to the foreign article. Also supply Safety Fuse and Electric Firing Appliances of best description.

The trade supplied on favourable terms.

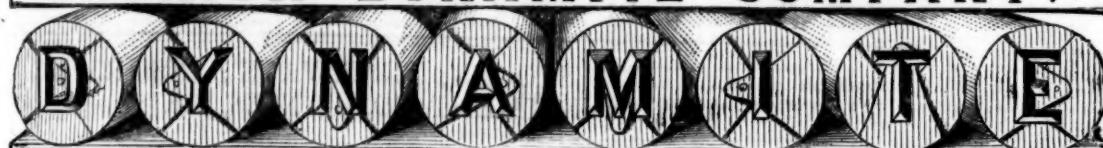
ADDRESS—THE COTTON POWDER COMPANY (LIMITED)

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OF THE GREATEST STRENGTH ALLOWED BY THE EXPLOSIVES ACT.

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NOBEL'S DYNAMITE.



MANUFACTURED AND SOLD BY THE

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VORMALS ALFRED NOBEL & CO., HAMBURG.
(HAMBURG DYNAMITE COMPANY, LIMITED),

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THOMAS POOLE, LIVERPOOL, 25, WATER STREET.

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THE KENNALL GUNPOWDER COMPANY, KENNALL VALE, PENRYN CORNWALL.
FRANCIS WILLIAM HAGGIE, GATESHEAD-ON-TYNE, DURHAM.
E. M. OWEN, FESTINIOG, NORTH WALES.
W. V. REES AND CO., PONTYPRIDD, SOUTH WALES.
E. BARNES, ULVERSTON, LANCASHIRE.

SILVER MEDAL (HIGHEST AWARD) MELBOURNE, 1881

JOHN SPENCER,

Globe Tube Works, WEDNESBURY,
AND 3, QUEEN STREET PLACE, CANNON STREET, LONDON, E.C.

FIRST PRIZE, SYDNEY, 1880.
TUBES AND FITTINGS for Gas, Steam, and Water; Galvanised, Enamelled, and Hydraulic Tubes; Boiler
Tubes and Fittings; Gas Fitters' Tools; Brass Cocks, &c.
ANTI-CORRODO TUBES AND FITTINGS COATED BY BARFF'S RUSTLESS PROCESS

TUBES

For Excellence
and Practical Success
of Engines.



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HARVEY AND CO.

(LIMITED)
ENGINEERS AND GENERAL MERCHANTS.
HAYLE, CORNWALL.

LONDON OFFICE.—186, GRESHAM HOUSE, E.C.

MANUFACTURERS OF
PUMPING and other LAND ENGINES and MARINE STEAM ENGINES
of the largest and most approved kinds in use, SUGAR MACHINERY,
MILLWORK, MINING MACHINERY, and MACHINERY IN GENERAL.
SHIPBUILDERS IN WOOD AND IRON.

MANUFACTURERS OF

HUSBAND'S PATENT PNEUMATIC STAMPS.

SECOND-HAND MINING MACHINERY FOR SALE,

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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
Shares.						
12000 Bedford Unit, *c, Tavistock (21 shs.)	0 14 0	13 1/2	1 1/2	0 1 0	0 1 0	May 1884
6000 Carn Brea, c, Illogan	13 2 11	13 1/2	1 1/2	52 11	0 10 0	Nov. 1882
4000 Craghant Bach, *c, Cardigan	5 0	—	—	0 5 0	0 5 0	Nov. 1882
10243 Devon Gt. Consols, c, Tavistock	1 1	2 1/2	2 1/2	214	118 7 0	0 8 3
4750 Dolcoath, c, t, Camborne	10 14 10	72	67 1/2	58 1/2	39 18 0	0 10 0
5400 East Pool, c, Illogan	0 9 8	43 1/2	38	40 15	6 1 0	Aug. 1884
12000 Great Holway, *t, Flintshire	5 0	0	—	0 12 0	0 7 0	Sept. 1884
15000 Great Laxey, *t, Isle of Man	4 0 0	93 1/2	93 1/2	30 8	0 5 0	Oct. 1884
6400 Green Hirst, t, Durham	5 6 0	4 1/2	4 1/2	4 15 0	0 5 0	July 1884
9330 Gunnislake (Clitters), t, c	2 2 0	3 1/2	3 1/2	0 19 0	0 2 0	Mar. 1882
2300 Isle of Man, *t, Isle of Man	25 0	—	—	83 5 0	0 0 0	Sept. 1880
8000 Killifret, t, Chacewater	4 8 5	1/2	1/2	0 14 0	0 2 0	Nov. 1883
20000 Leadhills, *t, Lanarkshire	6 0 0	1/2	1/2	1 7	0 0 1	Sept. 1884
2500 Levant, c, t, St. Just	11 0 0	0	—	0 2 0	0 2 0	Oct. 1884
4000 Llunbore, *t, Cardiganshire	18 15 0	1	1	0 15 0	0 10 0	June 1883
10000 Melinlaur, c, Haverfordwest	2 0 0	1	1	2 4 0	0 3 0	Jan. 1884
9000 Minera Mining Co., t, Wrexham	5 0 0	1/2	1/2	69 14 0	2 0 0	Aug. 1884
20000 Mining Co. of Ireland, c, t, *t	7 0 0	0	—	0 2 0	0 2 0	Jan. 1880
11823 North Hendre, t, Wales	2 10 0	—	—	3 18 0	0 4 0	Nov. 1882
3146 Ditto	1 5 0	0	—	0 11 0	0 2 0	Nov. 1882
10000 Phoenix United, t, c, Linkinhorne	2 0 2	9 1/2	2 1/2	25 17 7	6 1 0	Apr. 1883
20000 Roman Gravels, t, Saip	7 10 0	3/2	3/2	0 19 0	0 2 0	Sept. 1884
5123 South Condurrow, c, Camborne	4 5 0	7 1/2	9 1/2	8 11 8	6 0 0	Aug. 1884
5000 South Darren, t, Cardigan	1 16 0	2 1/2	2 1/2	3 4 0	0 2 0	Apr. 1880
5000 Tincroft, c, t, Pool, Illogan	14 2 8	73 1/2	64 1/2	51 3 0	0 5 0	Dec. 1881
5000 Van, t, Llandioedd (in 44s.)	4 5 0	3/2	3/2	25 13 0	0 2 0	Jan. 1883
6000 West Bassett, c, Illogan	7 5 4	2 1/2	1 1/2	28 3 0	0 6 0	Apr. 1882
6000 West Kitty, t, St. Agnes	5 12 0	10 1/2	9 1/2	3 1 0	0 12 0	July 1884
12000 Wheat Crebor, t, Illogan	19 6 0	16 1/2	16 1/2	1 0 0	0 5 0	Sept. 1884
1024 Wheat Eliza Consols, t, St. Austell	18 0 0	1/2	1/2	0 15 0	0 2 0	Nov. 1883
6000 Wheat Grenville, t, Camborne	15 0 0	0	—	6 1/2 6	2 2 0	Sept. 1880
4295 Wheat Peever, t, Redruth	5 12 0	0	—	3 1/2 12 18 8	0 1 0	Jan. 1881
3030 Wheal Peever, t, Redruth	14 9 6	0	—	3 1/2 8 13 0	0 4 0	Mar. 1881

FOREIGN DIVIDEND MINES.

	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
35500 Alamillos, t, Spain	2 0 0	—	—	13 1/2 13 1/2	2 16 8	0 1 8
30000 Almada and Tirito Consol., *t, *t	1 0 0	—	—	5 1/2 5 1/2	0 6 3	May 1884
20000 Australian, c, South Australia	7 7 5	—	—	1 11 0	0 1 0	May 1884
15000 Birdseye Creek, g, California	4 0 0	1	1	57 7	0 7 0	Oct. 1884
39000 Bratsberg, *c, Norway	2 0 0	—	—	0 2 0	0 2 0	June 1884
30000 California, *g, Colorado	1 0 0	—	—	13 1/2 13 1/2	0 4 0	Dec. 1884
20000 Cape Copper Mining, *t, South Africa	8 0 0	—	—	44 42 43 43 1/2	58 17 6	0 1 0
65000 Colorado United, *t, Colorado	5 0 0	—	—	2 1/2 2 1/2	3 14 6	0 0 0
50000 Copiapo, c, Chile (42 shares)	3 10 0	—	—	2 1/2 2 1/2	3 10 0	0 1 0
70000 English & Australian, *c, S. Aust.	2 10 0	—	—	3 2 9	0 1 0	Mar. 1884
30000 Eng.-Aus., *c, Viot, *t, pref. (20000 o.)	1 0 0	—	—	0 3 0	0 3 0	Sept. 1882
25000 Fortune, t, Spain	0 0 0	—	—	3 1/2 3 1/2	8 14 3	0 2 0
72000 Frontino & Bolivia, g, New Gran.	0 0 0	—	—	3 1/2 3 1/2	0 1 0	Dec. 1883
40000 La Plata, *t, Leadville	1 0 0	—	—	5 1/2 5 1/2	0 1 0	Sept. 1884
50000 Linares, t, Spain	3 0 0	—	—	3 1/2 3 1/2	19 13 4	0 3 0
20000 Marbella Iron Ore, *t, Spain	10 0 0	—	—	2 1/2 2 1/2	0 10 0	June 1882
185184 Mason & Harry, *t, Portugal	10 0 0	—	—	9 1/2 9 1/2	4 3 0 0	Sept. 1884
30000 Montana, *t, U.S.A.	2 0 0	—	—	1/2 1/2	0 0 0	Sept. 1884
60000 Queuleu-Hall, Land & Co., Venezuela	10 0 0	—	—	4 1/2 4 1/2	0 0 0	Sept. 1882
50000 Panucilio, c, Chile	4 0 0	—	—	3 1/2 3 1/2	0 0 0	Sept. 1882
25000 Pitangui, *t, Brazil (in 6000 £1 pd.)	0 10 0	—	—	0 1 0	0 1 0	Sept. 1882
100000 Port Phillip, g, Clunes (42 shares)	1 0 0	—	—	5 1/2 5 1/2	1 1/2 1 1/2	0 1 0
50000 Rara Fortune, *t, Argent. Republic	1 0 0	—	—	5 1/2 5 1/2	0 1 0	Dec. 1883
54000 Richmond Consol., *t, Nevada	5 0 0	—	—	3 1/2 3 1/2	4 16 18 6	0 5 0
24532 Rio Tinto, *t, Mortgage Bds., Huelva	100 0	—	—	94 1/2 99 100	5 0 0	Aug. 1884
325000 Ditto, shares	10 0 0	—	—	15 15 15	4 6 0	0 0 16
40000 Santa Barbara, *t, Brazil	0 10 0	—	—	2 1/2 2 1/2	0 1 0	May 1884
12000 Schwab Gully, t, Kimberley	10 0 0	—	—	6 6 6	6 2 6	0 10 0
120000 Scottish-Australian Mining Co.	1 0 0	—	—	2 1/2 2 1/2	0 2 0	Apr. 1884
80000 Ditto, New	0 10 0	—	—	1/2 1/2	20 20 20	0 1 0
225000 Sierra Buttes, g, California	2 0 0	—	—	1/2 1/2	2 6 6	0 0 0
40625 Ditto, Plumas Eureka	2 0 0	—	—	1/2 1/2	3 1 0	0 2 0
253000 St. John del Rey (1/2 Stock and multiple desatn.)	60 70	—	—	5 p.c. for half-year	June 1882	
150000 Tambracherry, g, Wynaad	1 0 0	—	—	3 1/2 3 1/2	0 0 0	Aug. 1882
625000 Tharsis, *c, sul, Spain (57330 issued)	2 0 0	—	—	8 1/2 8 1/2	6 18 11 0	May 1883
140000 Tolima, g, Colombia (A shares)	5 0 0	—	—	6 1/2 6 1/2	5 12 4 0	Sept. 1884
60000 Ditto (shares)	5 0 0	—	—	5 5 5	10 10 10	Sept. 1884
25000 Victoria (London), g, Australia	1 0 0	—	—	5 1/2 5 1/2	0 13 10 0	Sept. 1881
124211 United Mexican, *t, Mexico	9 17 0	6 3/4 3/4	3 3/4 3/4	0 2 6 0	0 2 6 0	May 1884
100000 Victorine (Nevada, U.S.A.) Deb. Bds.	1 0 0	—	—	0 2 0 0	0 0 0	June 1882
150000 Western Andes, s, Colombia	5 0 0	—	—	5 1/2 5 1/2	4 18 3 0	Aug. 1884
21000 W. Prussian (5500 pref. sh. £10 pd.)	10 0 0	—	—	4 2 0 2 0	0 8 0 0	Apr. 1881
64000 Yorke Pen., c, South Aust. Pref. t	1 0 0	—	—	3 1/2 3 1/2	0 3 0 3	May 1882

* Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

Shares.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
25000 Aberdura, *t, Denbigh	1 10 0	0	—	—	—	—
12000 Anderton, t, c, t, Devonshire	1 2 0	8	3	34	34	34
12000 Assheton, t, Carnarvonshire	5 0 0	0	—	—	—	—
3200 Blue Hills t, c,						